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- Cronenberg Q & A
- Suschitzky Grilled by Daviau, Elmes

A Tantalizing *Temptress Moon*

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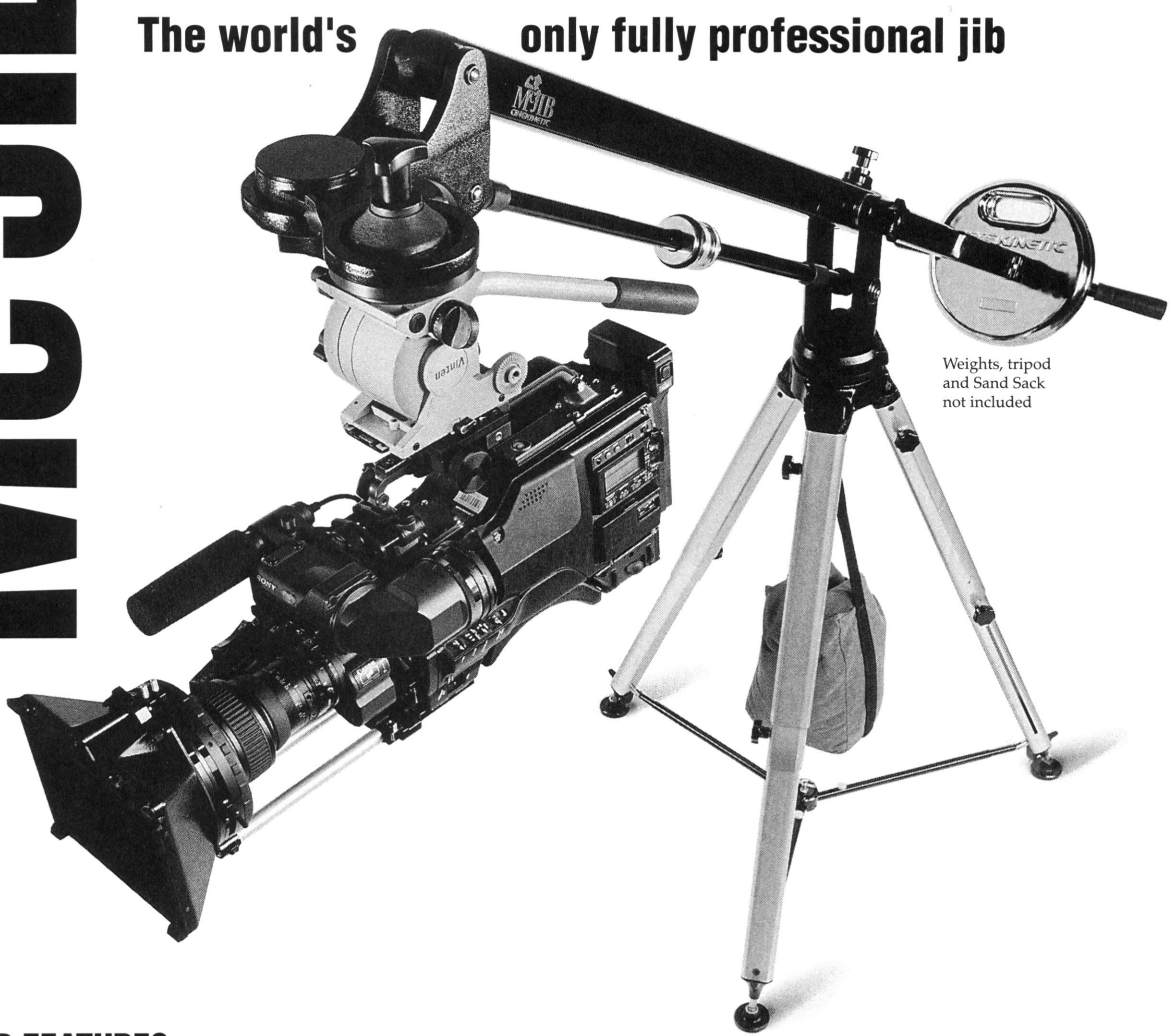

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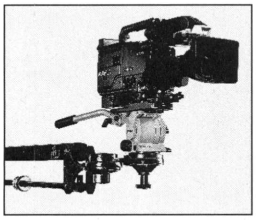

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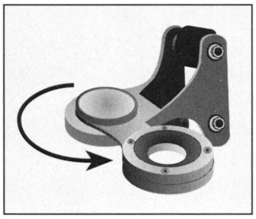

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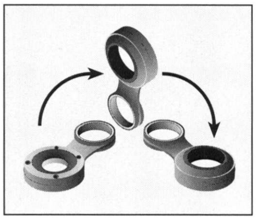

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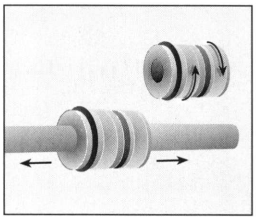

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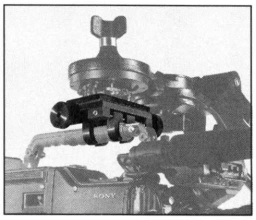

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The International Journal of Film and Electronic Production Techniques

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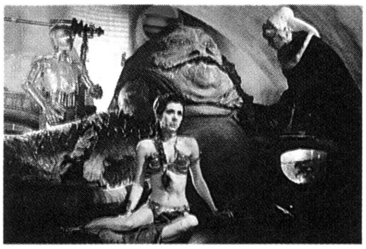

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On Our Cover: James Ballard (James Spader) stares out from the wreckage of his car in *Crash,* directed by David Cronenberg and photographed by Peter Suschitzky.

Contributing Authors: Michael X. Ferraro, Jay Holben and Christopher Probst

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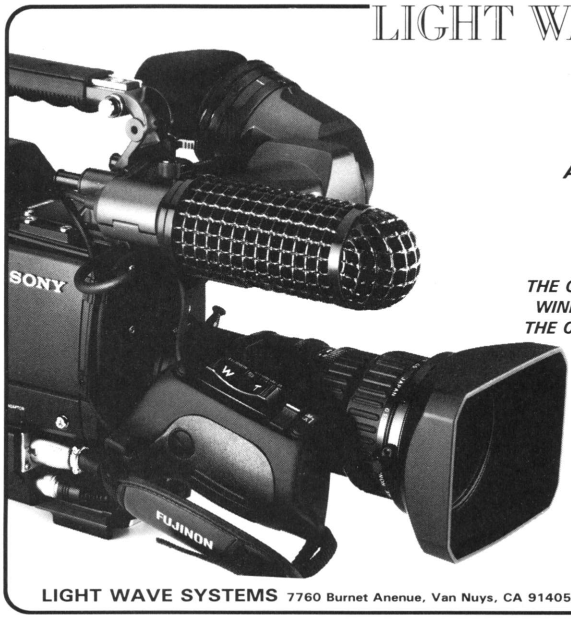

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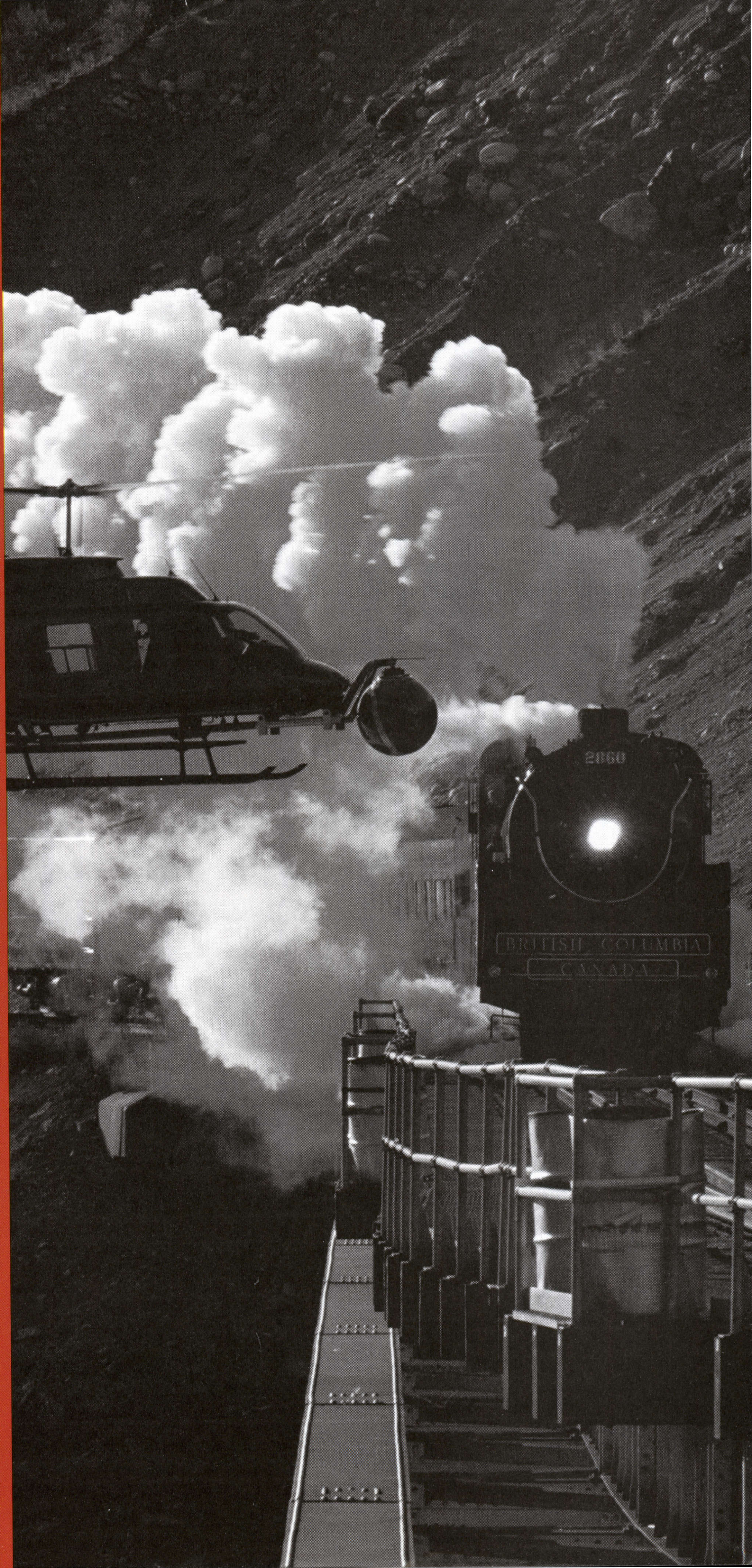
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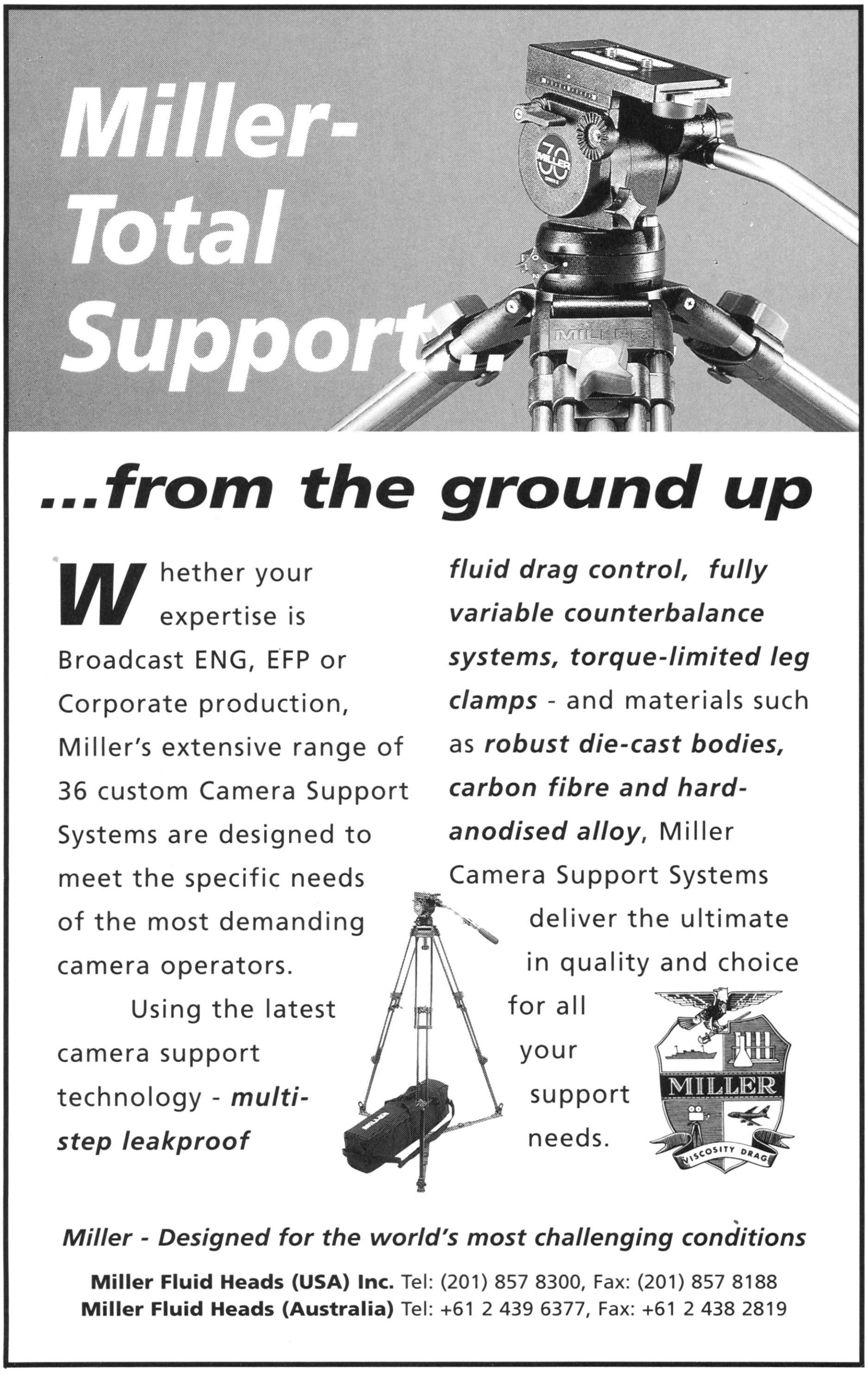
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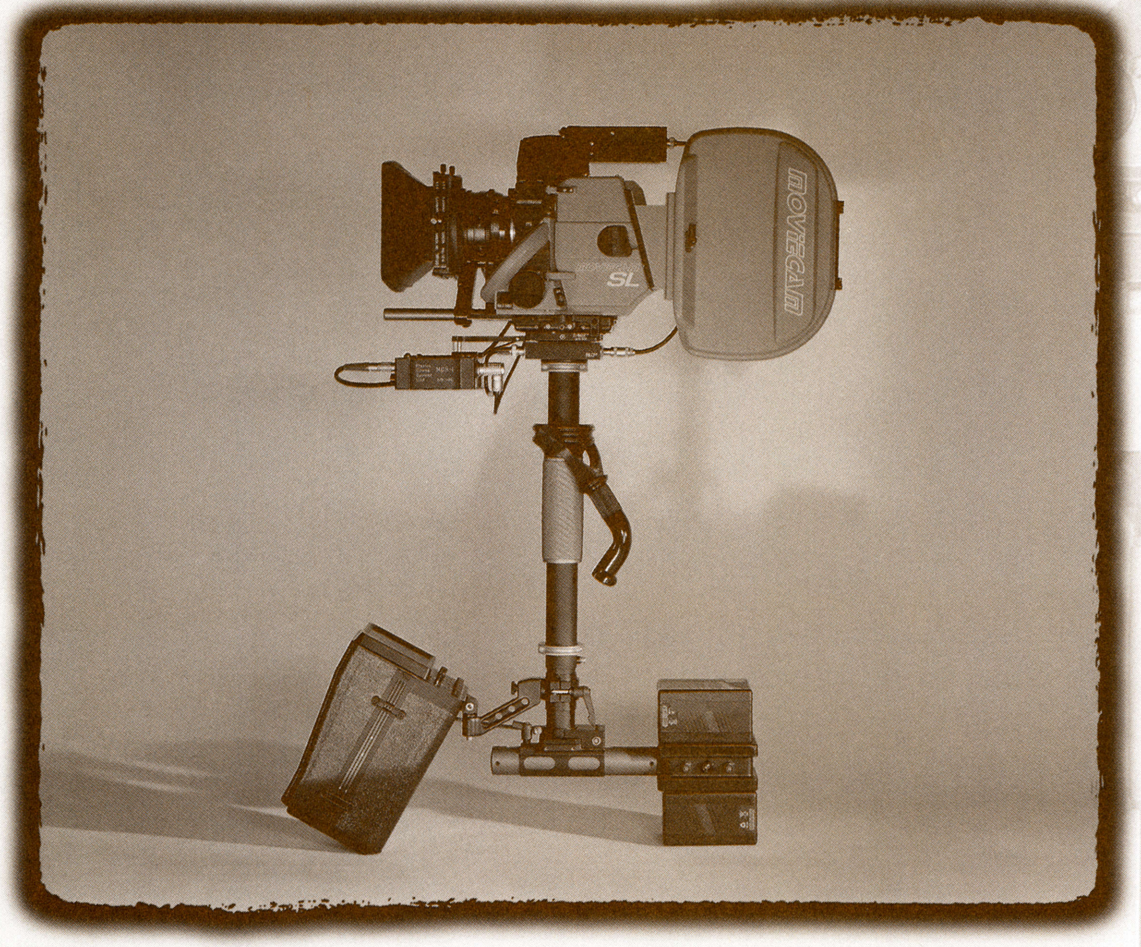

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Feature Films

Fargo	Roger Deakins ASC BSC	Arri BL4
Fly Away Home	Caleb Deschanel ASC	Panaflex
Evita	Darius Khondji AFC	Moviecam
Michael Collins	Chris Menges BSC	Moviecam
The English Patient	John Seale ACS ASC	Panaflex
Ghost & The Darkness	Vilmos Zsigmond ASC	Panaflex

Movies Of The Week/Pilots

What Love Sees	Robert Draper ACS	Arri 535
Gotti	Alar Kivilo CSC	Panaflex
Hidden In Silence	Michael Margulies ASC	Panaflex
Rasputin	Elemer Ragalyi HSC	Moviecam
Riders Of The Purple Sage	William Wages ASC	Panaflex
Millenium	Peter Wunstorf	Arri/Moviecam

Television Series

Chicago Hope	James Bagdonas ASC	Moviecam
The X Files	John Bartley CSC	Arri/Moviecam
NYPD Blue	Brian J. Reynolds	Panaflex
Murder One	Aaron Schneider	Panaflex
High Incident	Bing Sokolsky	Aaton/Panaflex

Television Miniseries

Ruby Ridge: An American Tragedy	Donald M. Morgan ASC	Moviecam
Pandora's Clock	Steven Shaw ASC	Panaflex
In Cold Blood	Peter Woeste CSC	Panaflex

Academy Cinematography Award Nominations:

Fargo	Roger Deakins ASC BSC	Arri BL4
Fly Away Home	Caleb Deschanel ASC	Panaflex
Evita	Darius Khondji AFC	Moviecam
Michael Collins	Chris Menges BSC	Moviecam
The English Patient	John Seale ACS ASC	Panaflex

All the new Award winners have already been named, but we're still congratulating the nominees. Here's why:

It's not a competition, of course; even as
a comparison, it's often apples and oranges

We spoke to an ASC cameraman: "Once in a while," he said, "It's easy to spot one winner. But most of the time, it's tough. Even picking out five nominees is difficult. This year, the voting resulted in two ties, so there are six nominees in each of those two award categories."

"All the prints are screened in the same ASC theater and with no credits. We try to be impartial; even so, it's unavoidably a matter of taste. At the awards dinner, the winners frequently express doubt that their work is any better than the other films nominated." *Congratulations to everyone.*

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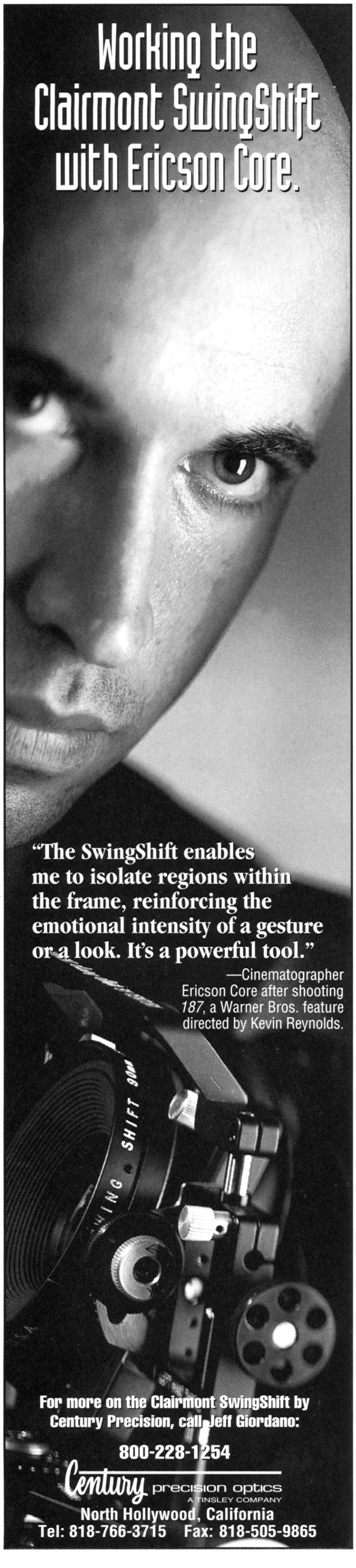
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—Cinematographer Ericson Core after shooting *187*, a Warner Bros. feature directed by Kevin Reynolds.

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Letters

Further Format Flubs

There are a number of errors in Frederick C. Szebin's article on *Around the World in 80 Days* [*AC* Feb. '97]. First, according to Michael Todd, Jr.'s biography of his father, *A Valuable Property*, and other widescreen historians, including John Belton and Daniel J. Sherlock, Todd-AO was developed not to compete with CinemaScope but as a response to Mike Todd's disappointment with Cinerama. Szebin did not note that it was Todd who put Cinerama on the map, seeing it as the film equivalent of a big Broadway show — a special and unique event. However, Todd was unhappy with Fred Waller's inability to eliminate the visible joins between the three panels, and approached Professor O'Brien to develop a "Cinerama out of one hole."

Szebin also doesn't mention that many of the film's exteriors were actually shot on various Hollywood backlots. The balloon ascents from Universal's old European Street (which burned down in 1967) and the landing he describes look as they were shot on another backlot, not in Spain as the article implies. The scenes supposedly going through the Indian jungle were actually shot on the 20th Century Fox backlot in what is now Century City, according to John Hora, ASC. And there *is* a rear projection shot during the balloon sequence, apparently using a 35mm flat plate.

Most controversially, Szebin repeats the claim that *Around the World* was shot in both 65mm and CinemaScope, like *Oklahoma!*. It was actually shot entirely in 65mm, but at *two different speeds:* 30 fps for the 70mm version and 24 fps for the 35mm 2x and 1.56x (CineStage) squeezed anamorphic versions. This was reported at the time in *Daily Variety* and a couple of other publications, and is also verifiable by an acquaintance of mine who has seen both negatives in the vault at Warner Bros., and who purchased the film from Elizabeth Taylor some years ago.

It is also quite obvious from looking at the film itself. In the last six years, I've seen both a 70mm print and a CineStage print, and it is obvious that the latter is a reduction from a larger negative. Also, there is no intercutting of 35mm anamorphic and 65mm material, as director Anderson is quoted as claiming. There *are* differences in takes between the two versions: for example, David Niven's character orders different foods on the trip from Egypt to India.

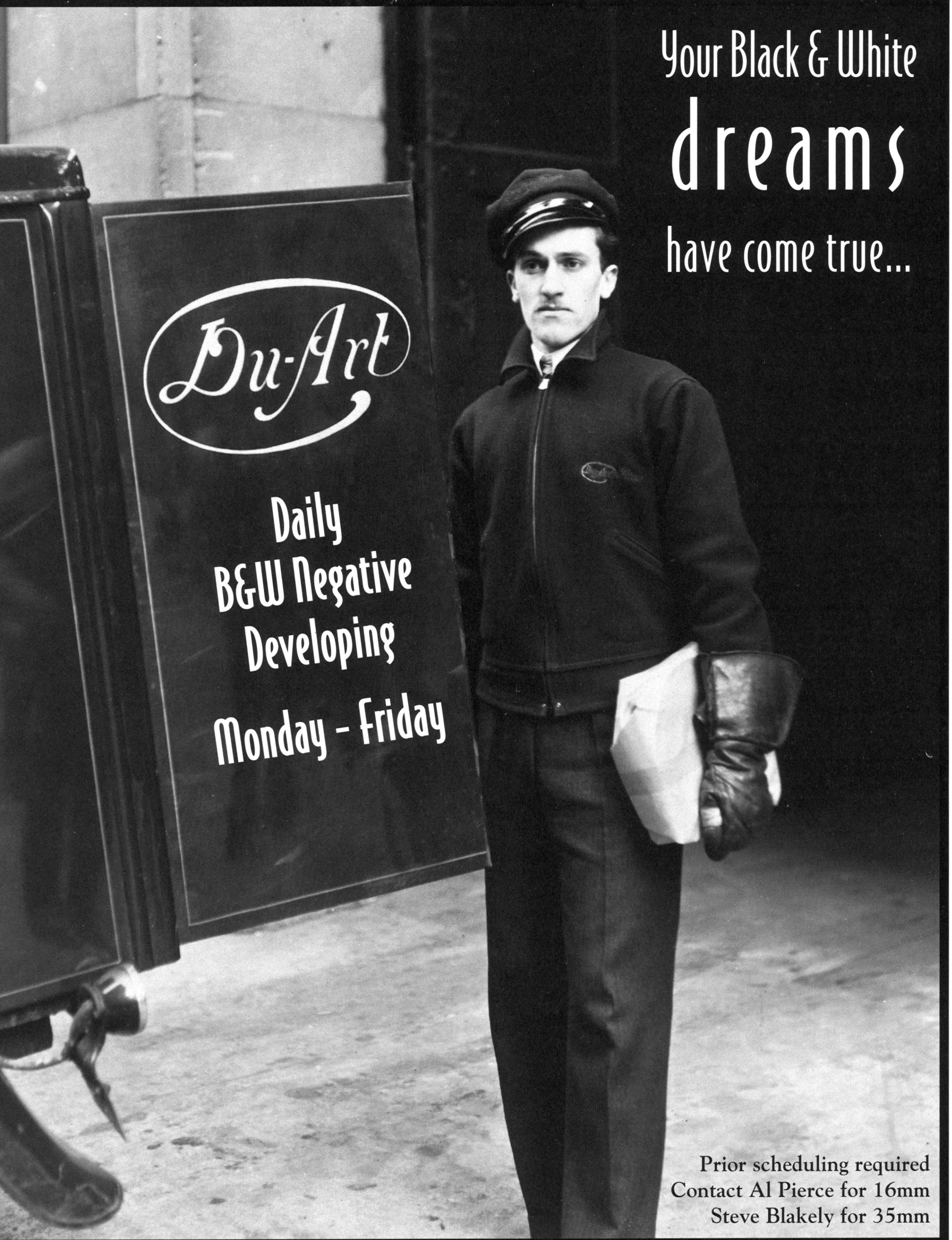
A look at the film also refutes the claim made by Carr and Hayes that the cartoon end-credit sequence was shot in 35mm anamorphic and blown up to 65mm. Not only does this footage lack the visible grain that would result from such a blowup, but also the varying squeeze aberrations found in anamorphic lenses of the time and visible in CinemaScope cartoons made by Disney, MGM and Terrytoons.

— Rick Mitchell
Los Angeles, California

[Ed. note #1: In order to save the knowledgable and ever-vigilant Mr. Mitchell the cost of stamps and typewriter ribbons, AC *recently asked him to serve as a technical consultant on any articles dealing with special film formats. Happily, he accepted. This arrangement will undoubtedly eliminate any future errors in articles of this kind.]*

Historical Heresy

As the screenwriter of *Rosewood*, I would like to address a couple of errors in your interview with Johnny Jensen [*AC* Feb. '97]. First of all, [actor] Jon Voight's character is not fictional. John Wright was not only a real person, he was a hero who risked his life and the lives of his family to help the citizens of Rosewood. Secondly, it disturbs me that a publication as knowledgeable about filmmaking as *American Cinematographer* credited the director with writing the movie. This is akin to saying that the movie looked beautiful because of the way the director lit the film, selected the lenses, dealt with the lab and pulled fo-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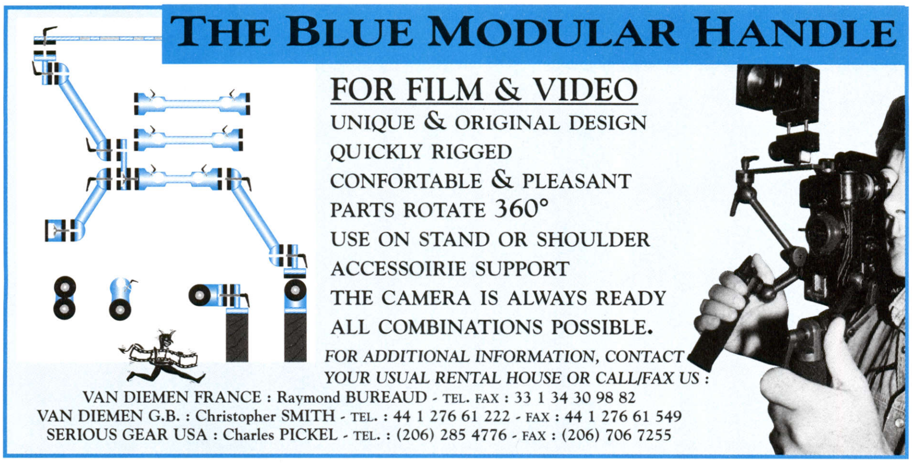
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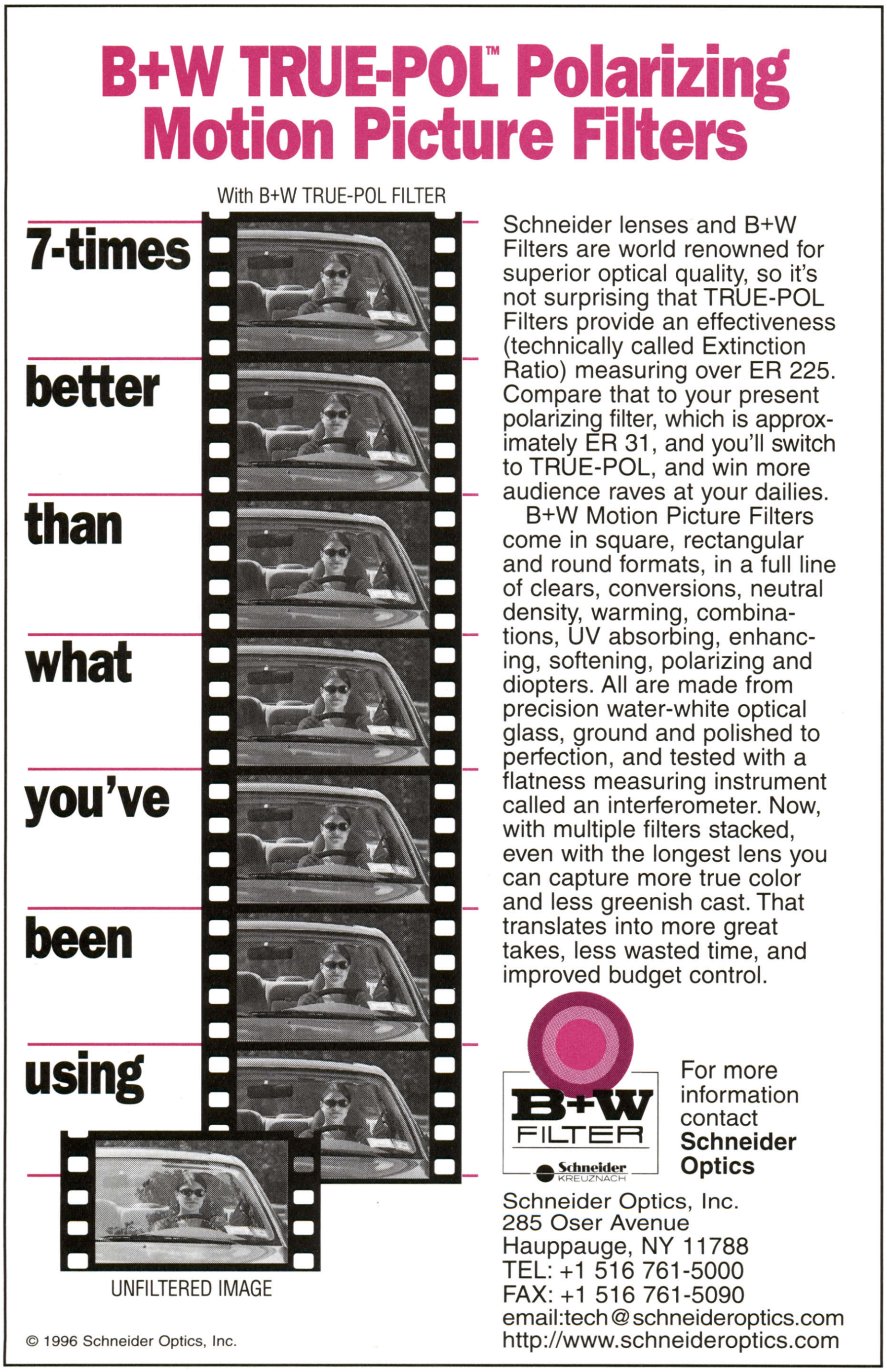
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cus. In the future, please try to remember that directors direct, cinematographers shoot and writers write. Give credit where credit is due.

— Gregory Poirier
Brentwood, CA

[Ed. note #2: Apparently, February was an off month for our usually diligent copy editors. AC regrets the errors.]

From Stockholm with Love

Regarding Robert Steadman's piece on *The Man Who Captured Eichmann* [*AC* Dec. '96], I thought the diary concept was a great way to convey the everyday aspects of a feature shoot. The article was not only informative, but also very well-written. Steadman has a very easy conversational voice which contains elements of slang from pop culture as well as the more formal prose of a professional. This made for a thoroughly enjoyable read, and I think the format would make a great regular column in your publication. Keep up the good work.

— Steven Bush
Stockholm, Sweden

[Ed. note #3: Thanks, Steven, we needed that!]

◆

Next Month in *AC*:

The Fifth Element
Director:
Luc Besson
Cinematographer:
Thierry Arbogast, AFC

Selena
Director:
Gregory Nava
Cinematographer:
Ed Lachman, ASC

The Flood
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Mikael Salomon, ASC
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In the Gloaming
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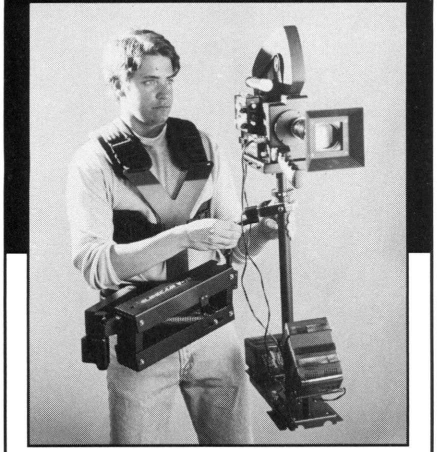

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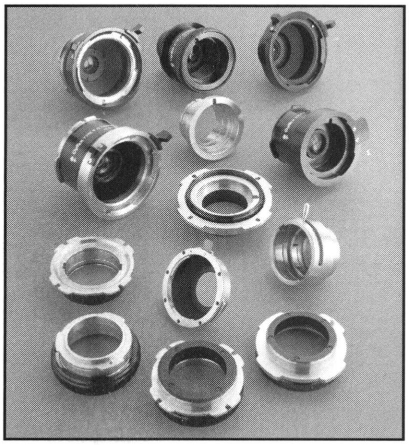

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It's Showtime for DTV

by Frank Beacham

As many of the nation's over-the-air television outlets prepare for the annual National Association of Broadcasters (NAB) convention to be held in Las Vegas this month, many are confused and apprehensive about the digital future, and with good reason.

Even though an FCC-mandated technical transmission standard is in place and the spectrum wars have at least temporarily subsided, a looming question remains for terrestrial television stations: How do you make money with digital broadcasting technology?

Where's the business plan? How does a television station justify spending $2-3 million on a new transmission system and another $6-10 million on a new production plant just to get digital television up and running? Where's the financial model that outlines a clear path to profitability for DTV?

Even the NAB, the powerful trade and lobbying association that represents the business interests of television stations, has no answer to offer. "We do not deny that this is a huge capital expense imposed on the industry without additional, immediately recognizable revenue possibilities," opines NAB chief Eddie Fritz. "However, broadcasters have always been adept and far-sighted in investing in their equipment and their plant."

Of course, television broadcasters had better have ingenuity and foresight if they are to successfully compete in the increasingly crowded marketplace of direct-to-home satellites, digital cable television and computer networks. Yet there's increasing evidence that many local broadcasters don't have much of a stomach for the impending battle.

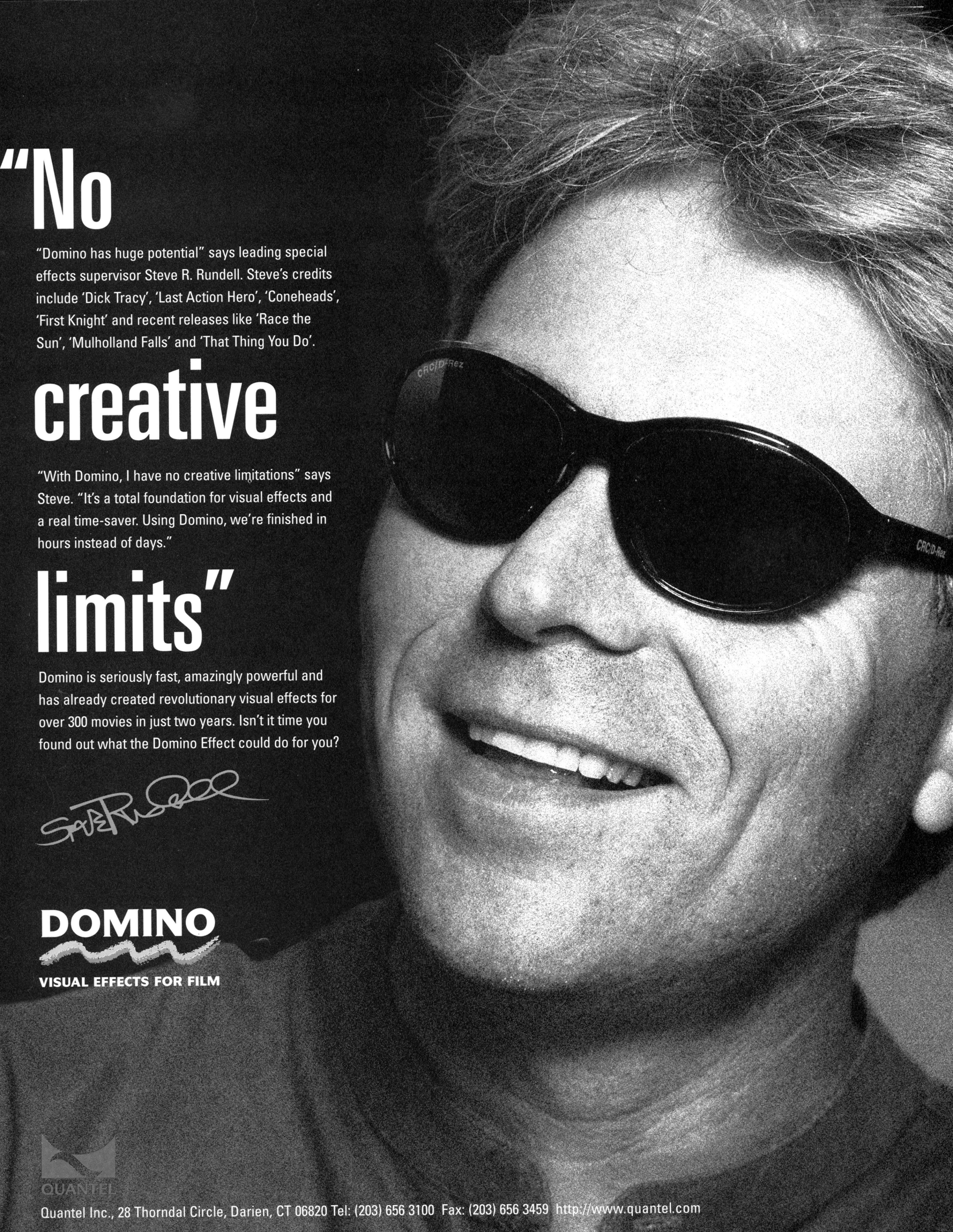
"The NAB portrays digital television as a being a consensus across the industry, but that has not been my experience when I talk with broadcasting people," says Bill Frezza, president of Wireless Computing Associates, based in Yardley, PA. "Many of them see no profit potential. They wonder where the market is for all of this."

Because the technology is digital, DTV can be implemented in different ways. A single DTV channel can handle as many as five simultaneous 525-line resolution programs or a single high-definition (HDTV) broadcast; it can also be used to transmit an endless array of data services. However, for the past 15 years the new technology has been sold to broadcasters as essentially one thing: HDTV.

According to Mark Statzer, chief engineer at KASN-TV of Little Rock, Arkansas, the HDTV process should have begun with cable and satellite subscription services, not terrestrial broadcasters. "It started out as a good idea, but mandating that it begin with broadcast stations is at the wrong end of the spectrum," Statzer says. "It should start with the big movie channels. That would get the HD television sets into circulation and give people a bite of it. Then eventually they could mandate it for the broadcast stations."

In an e-mail message reacting to the FCC's recent approval of the DTV transmission standard, Statzer broke with the NAB position of a broadcaster consensus: "The groups involved in pushing HDTV down the FCC's throat are by and large not broadcasters, but big equipment vendors — TV, VCR and transmitter manufacturers who would like nothing better than a government mandate for us to throw everything out and start over. I doubt there are many broadcasters looking for an opportunity to spend millions on a new transmitter and technical plant, while being forced to transmit parallel NTSC signals for the next five to seven years."

Only now are the full implications of this inevitable technological shift starting to sink in. The reality is that DTV will entail a complete overhaul of the



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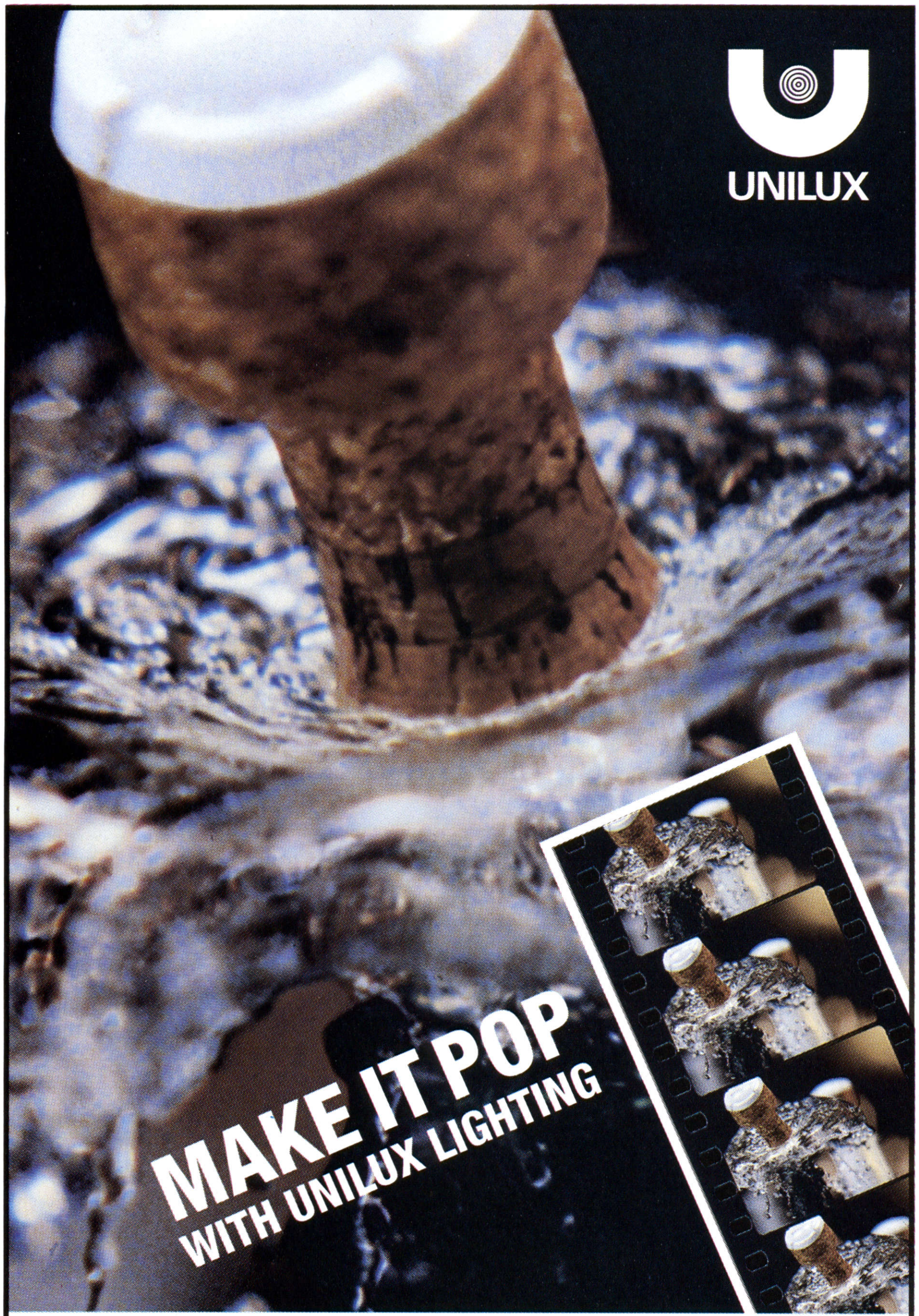

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American television broadcasting infrastructure. The over-the-air NTSC television broadcasting system will have to be dismantled, and every participant — from television producer to broadcaster to home viewer — will have to chuck their current NTSC equipment in favor of new digital gear.

Since the transition to digital technology is not happening in a vacuum, it's bound to result in a new power struggle over who controls the dominant television broadcasting pipeline into the nation's living rooms. The broadcasters sense that their 50-year control of the airwaves is seriously threatened, and many are uneasy with a computer culture that they have yet to comprehend.

Interestingly, the only group not to claim victory under the compromise over a DTV transmission standard are motion picture filmmakers, represented by such groups as the American Society of Cinematographers and the Directors Guild of America, who had urged the FCC to mandate that films be presented in their original aspect ratio. The FCC, however, refused to do so.

But FCC Commissioner Susan Ness, a key player in effecting this compromise, says digital technology is capable of instructing TV sets to display a wide variety of formats, and she urges digital broadcasters to voluntarily commit to transmitting films and other works in their original aspect ratio. "I would applaud such a voluntary undertaking, and so would the public," she said.

Ironically, feature film professionals may eventually get their wish, since this technological shift is in their favor. Computer software may soon resolve the technical disputes between the broadcasters, the computer industry, electronics manufacturers and moviemakers, notes Andrew Lippman, associate director of the Media Laboratory at the Massachusetts Institute of Technology and head of the Lab's research into the future of television. "The future of [video] pictures doesn't need standards anymore," says Lippman. "Those kinds of things are migrating in software faster than anyone thought 10 years ago. The key battle has been and always will be what happens in the spectrum. It's a land grab up there. Who gets to use it and what they use it for is at this point what's most interesting." ◆

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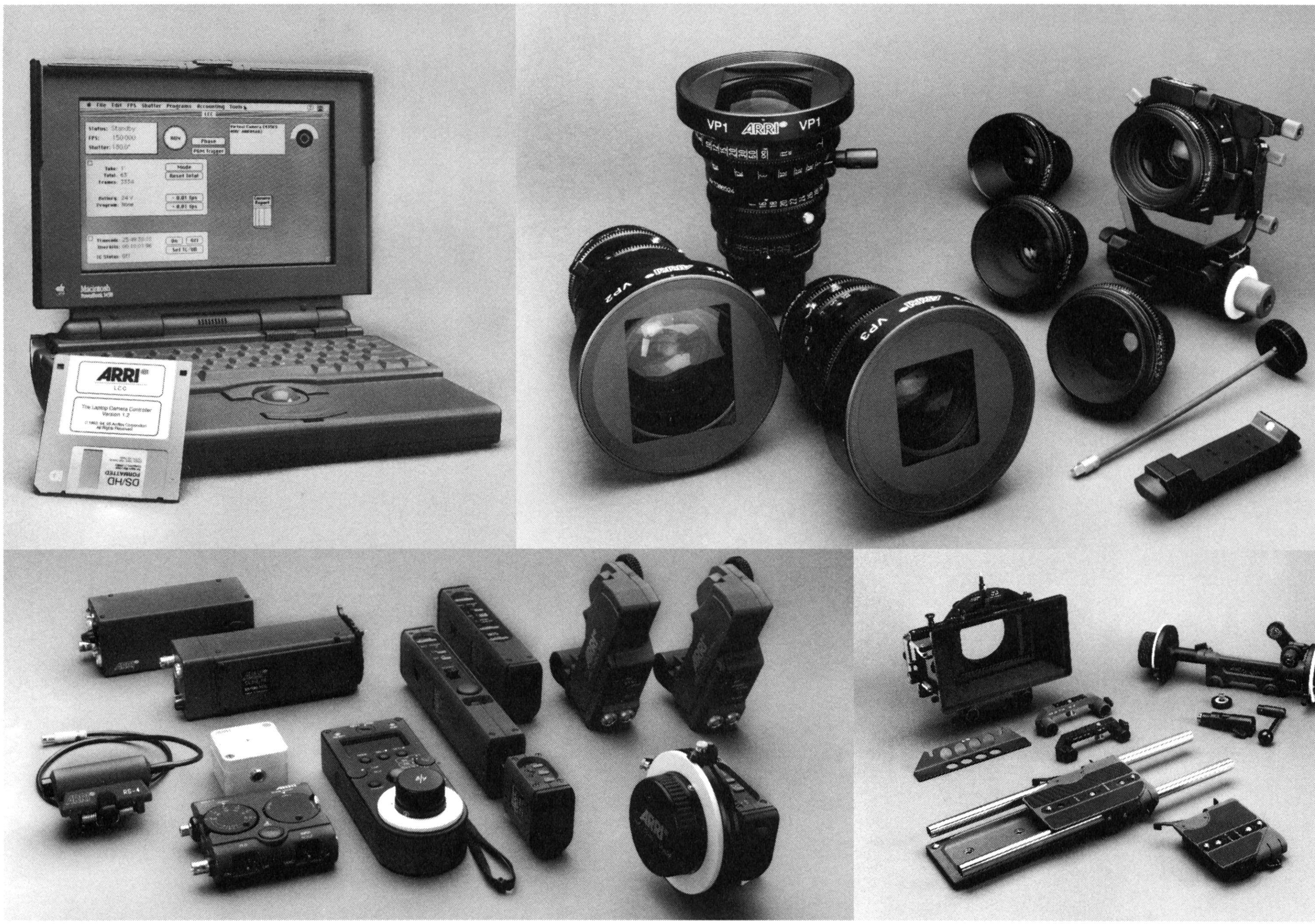

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Production Slate

Bringing Back *Texas Chainsaw's* Buzz

by David E. Williams

New Jersey-based Elite Entertainment produces collectors' edition laserdiscs of cult and horror films, which have included their award-winning release of *Night of the Living Dead*, as well as *Re-Animator* and *A Nightmare on Elm Street*. Operated by Vincent Bancalari and Don May, Jr., Elite takes its material seriously: all films are presented uncut (or sometimes in longer versions), in their original aspect ratio and often accompanied by supplementary features such as trailers, excised scenes and still-photo libraries.

Elite recently completed a two-year odyssey of frustration to produce their disc version of *The Texas Chainsaw Massacre* (1974), the infamously shocking tale of buzzsaws and cannibalism forcefully directed by Tobe Hooper and evocatively shot by cinematographer Daniel Pearl — who would again collaborate on the 1986 remake of *Invaders from Mars*. "The *Chainsaw* project took so long because we had no idea how much film restoration would be involved," admits May. "When Vinnie and I got the opportunity to do this title, we thought, 'Great, let's start with the original film elements.'"

May and Bancalari knew that Pearl had shot *Chainsaw* in 1.85:1 Super 16 for 35mm blow-up on a since-discontinued Eastman reversal stock called ECO (7252 Ektachrome Commercial Film). The cameraman's tests revealed that making a 35mm internegative from a conformed reversal original would provide the best results in terms of grain and contrast for their final print. The drawback was that the low-contrast ECO stock had a rating of 25 ASA (16 ASA with an 85 filter) while large portions of the film took place either at night or within cramped practical interiors.

To their dismay, the Elite duo discovered that the various distribution companies to own *Chainsaw* over the last 23 years had shown little respect for the title — although the independent feature, made for less than $90,000, is one of the most profitable films of all time, with cumulative earnings of over $40 million. Says May, "We soon found that the original 16mm elements seemed to have vanished. Everyone agreed that they existed, but nobody knew *where*."

After further legwork, Elite found an archive in Austin, TX that *did* have *Chainsaw* material in their vaults "but no clue as to what," says May. Arriving to investigate, he was shocked by what he found: the film's 16mm A-, B-, and C-rolls. The Holy Grail of Horror.

***Leatherface (Gunnar Hansen) dooms yet another unsuspecting soul in the seminal 1974 horror film* The Texas Chainsaw Massacre.**

The "archived" material had been stored in "little white boxes inside a paper bag," May recounts. "The reels were unspooled or wound too tightly and they were in very poor shape. It wasn't the vault's fault — it looks as if the footage could have been originally packed that way. But this stuff probably sat there for 23 years, and it was just the luck of the draw that we found it. Everybody's excitement level went up a notch, but that's when all of the horrifying things really began for us."

The *Chainsaw* A-, B-, and C-rolls were quickly taken to Modern Videofilm in Burbank. The firm had previously done the THX transfer for Elite's 1994 re-release of *Night of the Living Dead*, another film that had suffered from poor preservation practices. "We'd had good luck with Modern before," says May, "but three days later we got a call: the hot-splices had become brittle and the film was falling apart in their hands."

In addition, the rolls had been wound very tightly, and hadn't been rewound for over two decades; as a result, the splicing glue had seeped into the base and emulsion surfaces of the frames on either side of the splices. The contamination resulted in white, scar-like striations which slashed horizontally across some 170 frames. Explains Bancalari, "At nearly every edit point, the frames on each side of the cement splice were marked with this scarring."

The situation compelled Elite to make a decision. "We could have done a THX transfer of an existing 35mm print," Bancalari explains, "which would have given us the best available quality with the best available element. But after we saw the 16mm originals, we knew we had to take the money we would have spent getting THX certification and do the right thing by sinking it into restoring these elements. So the plan became to strike a new 16mm internegative from the reversal originals."

Modern Videofilm recommended that Elite turn *Chainsaw* over to RGB Optical. There, the film was cleaned

AC Unveils Web Site

In the interests of keeping pace with modern publishing trends, *American Cinematographer* recently launched its very own Web Site. By tapping in the site's Internet address (www.cinematographer.com), visitors can access a variety of online options, including: selected stories from the latest issue; a list of back issues that may be ordered; a special "store" offering a variety of *AC* merchandise (including caps, T-shirts and books); a "newsroom" offering information from the American Society of Cinematographers; a "studio" which will soon offer movie clips and other interesting downloads; an area devoted to industry advertisements from both equipment manufacturers and readers; and a "guest book" that will allow visitors to sign in and offer comments. Jump online and visit today!

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and the splices repaired before a new high-contrast 16mm internegative was struck. This is not to say the process was easy. Recalls May, "The cyan layer was completely gone, and the striations from the cement were worse than we suspected, so the process took much longer than we thought it would. Bob Brown [of RGB] did everything he could, while an estimated two-week turnaround turned into six months worth of work.

"Part of this was due to the fact that there were no timing records with the A-, B- and C- rolls. So while making the interneg, Bob had to time the footage as best he could based on his own research. But he got it right – he nailed it."

The telecine transfer of the new 16mm internegative was overseen by Tobe Hooper and colorist Mark Nowicki at International Video Conversions in Burbank. The work was done using IVC's proprietary SuperScan down-conversion process, during which the film image is transferred to 1125-line HD digital video with 22:11:11 oversampling, and later down-converted to a 525-line NTSC signal. This eliminates aliasing artifacts and results in improved sharpness and detail. Recalls May, "Tobe practically started crying when he saw how good the image looked."

The resulting D-1 *Chainsaw* master was then taken to Sunset Post, where the image-marring striations were removed using a proprietary digital process by which the frames preceding and following the affected frame are averaged, after which a replacement image is generated.

To complete Elite's efforts, a new stereo-surround soundtrack was remixed by Hooper at Chace Productions.

Will the revived *Chainsaw* be buzzing back to theaters any time soon? "Well, the film looks beautiful and we could go theatrical, but only if the striation problem is permanently dealt with in some way," says May. "Robert Harris [of The Film Preserve, Ltd.], who recently did the film restoration on *Vertigo* [see *AC* Nov. 1996] has expressed some interest in doing that, but nothing has been agreed upon. But at least the actual film has been preserved by the creation of our new internegative. The film couldn't look any better."

A complete shot-by-shot commentary by Hooper and Pearl accompanies the film on the Elite disc's second mono audio track.

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VIFX Adds CG Menace to *The Relic*

by Ron Magid

The bane of director/cinematographer Peter Hyams' macabre movie *The Relic* is Kothoga, a creature that roams the halls of a natural history museum and slaughters those hapless enough to cross its path. To create this beast — which was inspired by South American mythology and recalls the monstrosities of preeminent Thirties horror novelist H.P. Lovecraft — Hyams and producer Gale Ann Hurd (*The Terminator, Aliens, The Abyss*) brought in four-time Academy Award-winning creature creator Stan Winston.

Envisioning Kothoga as an overwhelming, highly detailed hybrid organism textured with layers of scales and hair, Winston conceived it to be embodied by an individual clad in a suit. Such a design, however, posed limitations to any potential performer; Kothoga's larger-than-life proportions would allow an actor to walk in the suit and operate its arms to a limited degree, but permitted no control of the creature's head. Consequently, a team of puppeteers had to operate the movements of its mandibles and other facial features via radio-controlled devices.

Much of *The Relic*'s practical-effects work with Kothoga was shot live on Paramount's contiguous Stages 14 and 15, which housed an impressive, two-story Museum Diorama Hall set. When principal photography wrapped in February 1996, Los Angeles-based effects house VIFX (which has recently contributed to such films as *Broken Arrow* [see *AC* April '96], *From Dusk 'Til Dawn* and *Jingle All The Way*) entered the fray for 20 shots of Kothoga requiring movements far too rapid and unorthodox to be executed live on stage with the Winston Studios-built costume. "No man-in-a-suit creature could leap 30 feet or run at full speed across a room in a wide shot," explains VIFX vice-president Greg McMurry, who previously collaborated with Hyams on *2010, Timecop* and *Sud-*

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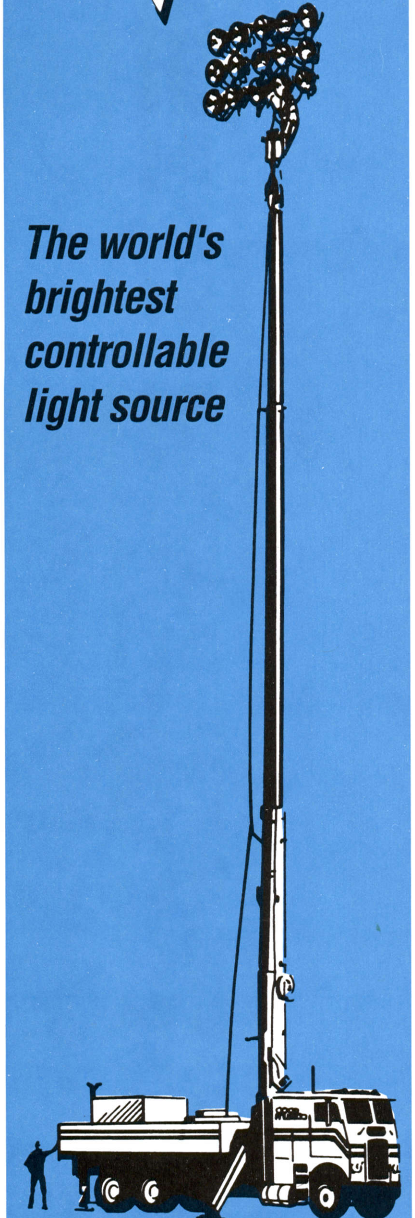

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***Micol (Dominique Sanda) and Giorgio (Lino Capolicchio) share a moment in* The Garden of the Finzi-Continis.**

den Death. "Those were the first shots we went after for our digital creature."

VIFX's animators elaborated upon the behavior of Winston Studio's composite creature by rendering Kothoga with varied animalistic traits (e.g. feline strength or reptilian resilience) in specific scenes. No single animation software, however, could accomplish everything Hyams expected from the CG monstrosity. To meet its deadline, the VIFX team developed custom codes to link their animation, rendering and compositing software programs. The overarching proprietary software — dubbed The Pipeline — enabled the firm's 10-person animation crew to perform parallel operations. Animations of stick figures (for Kothoga's bodily motions), specific music groups (shoulders, arms and legs) and hair were performed separately and then simultaneously added to the creature's master database. With this new technique in place, McMurry realized that his animators could produce better work in less time. "It became my opinion that it was more important to do our animation quickly than precisely," he explains. "The faster we did the animation, the more takes we could do, and the better each shot became."

For *The Relic*'s high-powered opening sequence, VIFX artists married in-camera trickery with digital imagery by directly intercutting the CG Kothoga with the shots featuring Winston Studios' suit. After using several detailed closeups of the corporeal Kothoga, Hyams then cuts to a long shot which reveals the CG creature's full body leaping wildly toward the camera. However, further complications arose once Kothoga found his footing; by this time, the disturbance had triggered the museum's overhead sprinklers.

Due to the beast's continuous movements while being drenched, VIFX's animators had to add 2-D digital background rain and 3-D digital foreground rain in order to fuse the behemoth with background plate imagery. But such challenges only served to enhance VIFX's experience on its first solo feature outing. "Our animators found Kothoga the most exciting thing in the world," notes McMurry "It was almost anything goes so long as it met the needs of the story. But that's the whole fun of animation, isn't it?"

VIFX, (310) 822-8872.

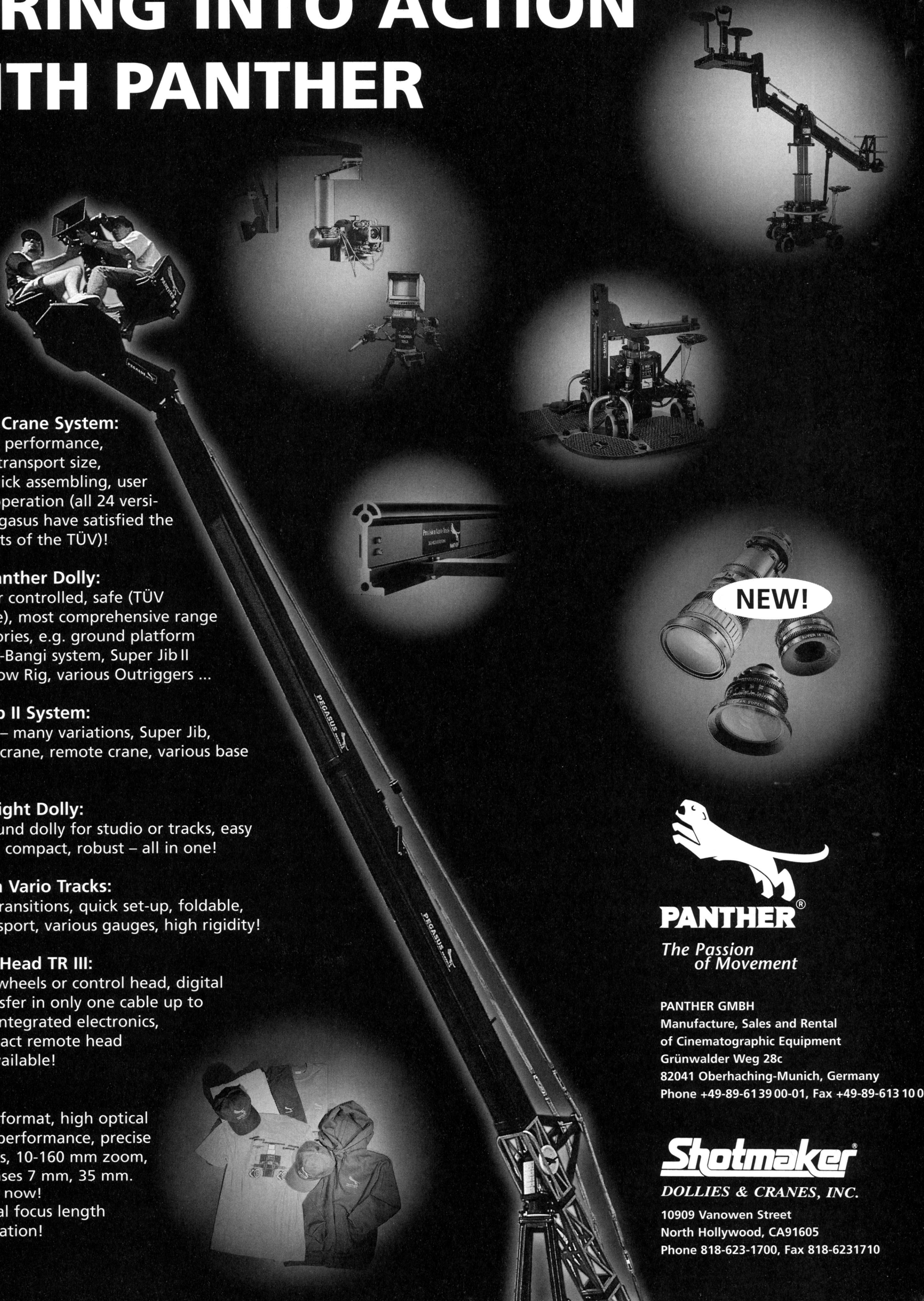
Renewing *The Garden of the Finzi- Continis*

by Eric Rudolph

The tale of a wealthy Jewish-Italian family's denial in regard to the horrors of World War II's anti-Semitism, *The Garden of the Finzi-Continis* was directed by Italian Neo-Realist Vittorio De Sica (*The Bicycle Thief, Umberto D*) and featured Dominque Sanda as the beautiful young daughter Micol. For the film's recent 25th anniversary re-release, a new interpositive master had to be created from the badly ravaged original negative. A quarter century's worth of dirt and scratches were removed via a process known as "lacquering," which, though common outside of the U.S., has many vehement Stateside detractors.

The 1971 Oscar-winner for Best Foreign Language Film, *The Garden of the Finzi-Continis* was photographed in a pastel-like style by cinematographer Ennio Guarnieri *(Brother Sun, Sister Moon; Wifemistress)*.

The *Finzi-Continis* negative was completely intact when unearthed for its re-release, but appeared to be in need of extensive cleaning and scratch-removal. Notes Marcello Giberti, general manager of Technicolor in Rome, "We ran a wet-gate print of one reel, which



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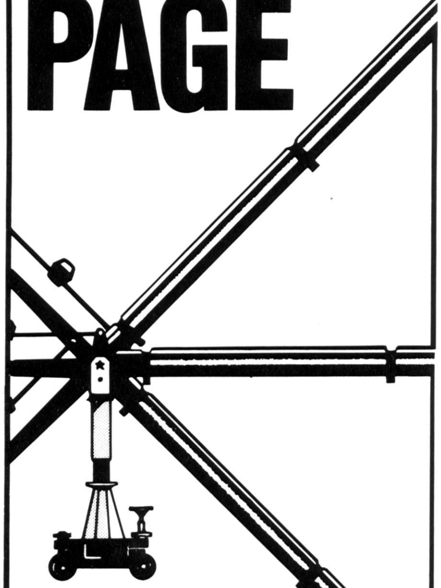

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showed that there was general wear and tear and a great deal of dirt, as well as ruptures, fissures and speckles throughout the negative." Fortunately, the negative had been stored in an air-conditioned vault at Technicolor (and elsewhere) so that color-fading was not a significant problem.

Ironically, most of the damage to the negative may have been a direct result of attempts to produce the best-looking release prints possible for the film's initial European theatrical run. In the early Seventies, creating quality release prints in Europe often meant striking them directly from the original negative, a process that would cause apoplexy in today's preservation-conscious filmmakers. In addition, the internegative and interpositive processes were not as advanced as they are today. Apart from the Technicolor process, in which prints were made from special matrices, one would have to run release prints from the original negative in order to achieve first-class results.

Gilberti explains, "Directors and cinematographers in Europe at the time were very concerned with putting the ultimate image quality on screen for the theatrical run, and so insisted that European release prints be struck from the original negative.

"The key concern was for the main theatrical run. Future uses, such as television, were not as big a factor, and home video did not yet exist. So it was not unusual in Europe for all of the release prints to be struck from the original negatives, without much concern for the negative's long-term survival. That is how most of the damage to the *Finzi-Continis* negative appears to have been done, and that is also some explanation as to why the negatives of European films are often more damaged than those of films produced in the States.

"In the U.S., more prints were needed of any given film than could be made from any one negative without inflicting severe damage, and so the release prints of American pictures were usually made from internegatives or interpositives, even if the quality suffered somewhat."

While Sony Classics terms the re-released *Finzi-Continis* a "restoration," film restoration experts consulted by *AC* did not agree that the processes applied to the new version of the film merited such a term.

Comments Robert A. Harris of The Film Preserve, Ltd., "It sounds as if the negative did not need restoration; the material apparently was all there. It may have needed to be cleaned, but there are other ways to eliminate dirt and scratches that do not harm the original negative. By treating the film to a lacquering process, they probably re-started or accelerated the deterioration process. Lacquering has, at best, uncertain archival consequences, and is very rarely done in the States anymore."

However, lacquering is still common outside of the U.S., Harris and other film restoration experts agreed, and that was the treatment decided upon for *Finzi-Continis.*

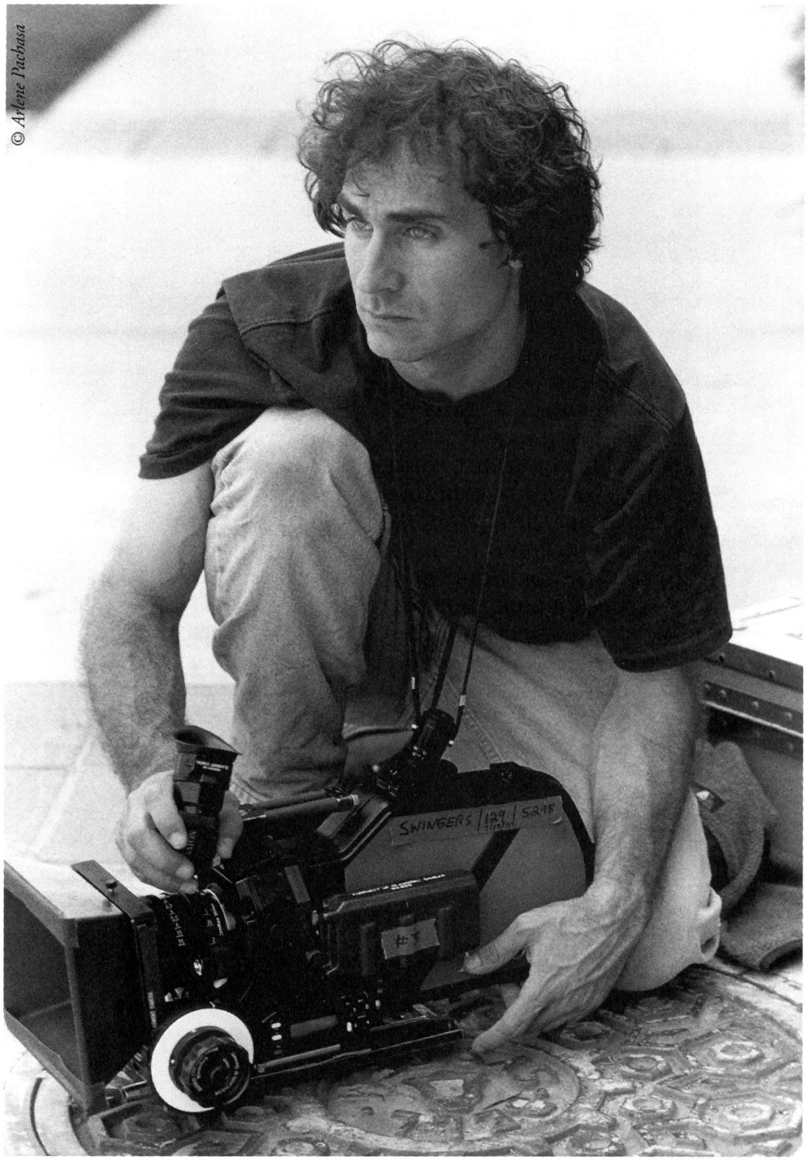
Giberti sent one reel of the picture's negative to Cinechimica in Rome, a small, family-run lab that has long specialized in repairing negatives. An integral part of Cinechimica's normal repair process is simple but meticulous hand-cleaning. Says Gilberti, "They check the negative by hand, frame by frame with a magnifier, and eliminate any problems on the surface manually before any chemical processes are done. This type of hand-cleaning is nothing new, but Cinechimica is very clever about it and they do it very well. *Finzi-Continis* required an especially intense amount of hand-cleaning."

Cinechimica invented and manufactured a film cleaning machine which is used in labs all across Italy. The machine cleans the film with a special cloth that runs in the opposite direction of the film. The machines are no longer being built, but were used by Cinechimica on the *Finzi-Continis* restoration, in addition to the hand-cleaning.

Once the cleaning process was completed, Cinechimica removed dirt and grease and made scratches less visible by treating the emulsion and film base sides with a chemical lacquering formula that is proprietary to Cinechimica. This process causes the gelatin to swell, raising grease and dirt and thus facilitating their removal. When the lacquering solution dries, the emulsion shrinks back to its original size. Another solution is then applied, which has the same refractive index as the film, so the scratches (when filled in with this solution) do not show up on screen.

The single repaired reel of

For his first feature, Doug Liman was looking for the 'ideal' camera. He made *Swingers* with the Aaton 35-III.



Doug Liman with the Aaton 35-III
Swingers ©1996 Miramax

Using a single Aaton 35-III from Clairmont Camera, he directed and photographed *Swingers* in just twenty-one days.

"If I could visualize the shot, I could capture it. With a traditional camera, you have to take the size of the camera into consideration when planning shots, or deciding the suitability of locations... When you have a camera this small, you don't have to tailor your shoot around the needs of the camera -- the blocking supports the performance rather than the physical limitations of the camera... With the Aaton35-III, I was able to shoot in a standard Airstream trailer and get all the shots I wanted, including dolly moves, without limiting the actors in any way. With any other camera, I couldn't have done it. Because of the compact size of the camera, as well as the instant change magazine, there is almost no down-time between set-ups and reloads. We could shoot as intensely as we wanted. If the actors wanted to roll, I could go with them."

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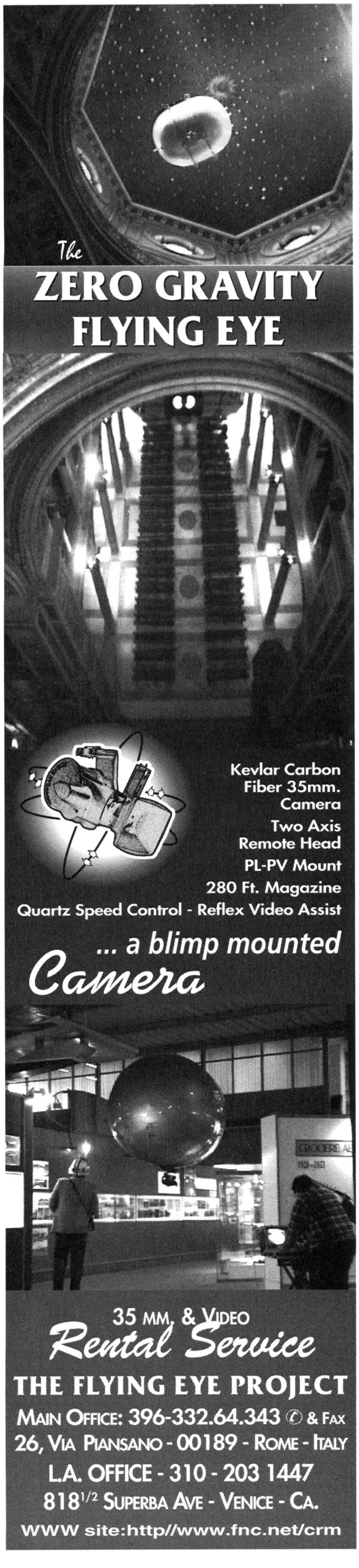

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Finzi-Continis was then returned to Technicolor in Rome, where a check print was struck. The results were deemed good, and so the remainder of the original negative was moved to Cinechimica to receive the same treatment. The process was completed by mid-July of 1996, when a check print of the complete negative was shipped to New York, where it was approved by Sony Pictures Classics. Technicolor Rome then struck an interpositive that was sent to Du Art in New York, where an internegative and the theatrical release prints were made.

The sound was restored from a 35mm magnetic three-track dialogue, music and effects master, which had been stored along with the picture negative at Technicolor Rome. Sound One in New York created a new Dolby Stereo A optical soundtrack negative from this material.

Sony Classics released the restored version of *Finzi-Continis* theatrically in major cities across the United States and Canada beginning last November. At press time, the studio was planning a slow platform release pattern, to be followed by a home video release in mid-1997.

Artists Rights Goes International

The Artists Rights Foundation has announced dates for its 1997 International Artists Rights Symposium and the fourth annual John Huston Award for Artist Rights dinner. This symposium will be held on April 17 and 18 at the Directors Guild of America, while the award dinner will take place on evening of the 18th in the International Ballroom of the Beverly Hilton Hotel.

The Huston Award is given each year to a film artist who has demonstrated courage, vision and distinguished service on behalf of artists rights. Past recipients have included directors Fred Zinnemann, Steven Spielberg and Martin Scorsese. This year's honoree, Milos Forman, is the director of such Academy-Award winning films as *One Flew Over the Cuckoo's Nest* and *Amadeus,* as well as this year's Oscar-nominated *The People vs. Larry Flynt.*

The fourth-annual International Artists Rights Symposium will address the issues of authenticity, fidelity and truth as they pertain to digital technology, and how these new digital tools represent both an opportunity for and a threat to creativity in filmmaking. Like the Foundation's first symposium, held in 1995, this year's symposium will include international panelists and participants. The guest list includes Forman, U.S. senator Orin Hatch, MPAA president Jack Valenti, and cinematographer Robert Primes, ASC. The centerpiece of the event will be a high-profile debate on property rights versus individual rights, with Professor Alan Dershowitz of the Harvard Law School and Judge Alex Kozinski of the 9th Circuit Court making their points on the matter.

Annette Bening, Oliver Stone and Martin Scorsese are the chairs of this year's event.

The Artists Rights Foundation is a non-profit corporation founded in 1991 by the Director's Guild of America in association with the Writer's Guild of America-West, the American Society of Cinematographers, the International Photographer's Guild and the Society of Composers and Lyricists. Its mission is to educate the public about the importance of ensuring that films can be seen as originally intended.

Artists Rights Foundation, (213) 436-5060.

First Look Series Comes to L.A.

Tribeca Film Center and Eastman Kodak have unveiled plans for a West Coast version of their successful First Look screening series. Beginning on April 21, a series of new independent films will be screened at Creative Artists Agency in Beverly Hills. First Look now offers independent filmmakers the unique opportunity of premiering their films nearly simultaneously on both coasts — New York screenings are held on the second Tuesday of the month and L.A. showings will be held on the third Monday of every month. Through the collective resources of Tribeca and Kodak, new films are viewed by an invited audience of industry professionals. Many of the films spotlighted by First Look have later been acquired by leading theatrical distributors, including Dirk Schaefer's *Man of the Year,* Dierdre Fishel's *Risk,* Robby Henson's *Pharaoh's Army,* and Hal Salwen's *Denise Calls Up.*

First Look (Harleen Freezer), (212) 941-4011, Fax (212) 941-2032. ◆

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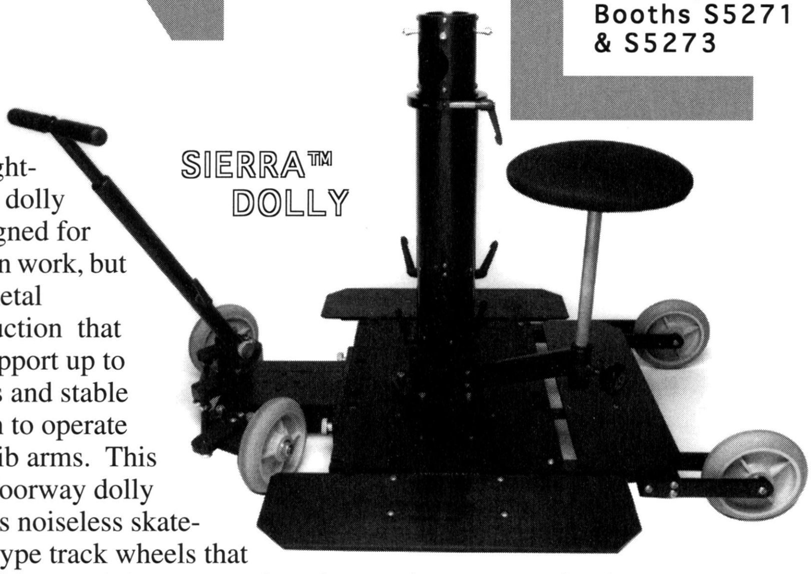

This new light-weight dolly is designed for location work, but with metal construction that will support up to 600 lbs and stable enough to operate small jib arms. This 60 lb doorway dolly features noiseless skate-board type track wheels that fit on either straight or curved track, round or square. On the floor, equipped with a 2-wheel steering mechanism, the Sierra's turning radius is 20" shorter than conventional doorway dollies. A full line of accessories is available, including an Adjustable Pneumatic Center Column, 360º Swiveling Seat and sets of pneumatic or hard rubber wheels.

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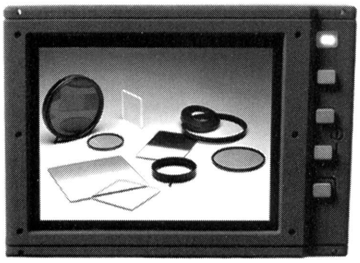

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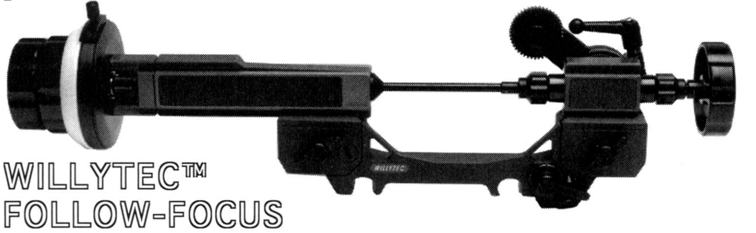

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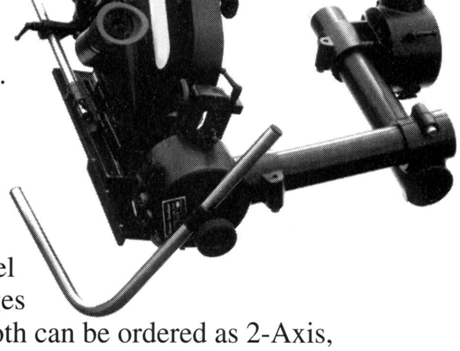

The fluid Weaver/Steadman 2-Axis and 3-Axis heads utilize a modular design and tube frame construction to provide a lightweight, rigid, infinitely adjustable assembly that supports and balances any camera package. Two models are now available: Model 1036 for camera packages up to 36 lbs and Model 3680 for packages up to 80 lbs. Both can be ordered as 2-Axis, 3-Axis systems or as a Dutch-Angle Attachment.

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Picture Perfect

Ron Garcia, ASC unveils his new Unified Color System, a digital method for improved on-location communications with the lab.

by Christopher Probst

In an industry of ever-shorter shooting schedules and tightening production purse-strings, today's directors of photography are often forced to tackle their projects without the benefit of film-printed dailies and the distinct information obtained with their printer-light values (which represent the consistency of their photographic practices). Instead, cinematographers frequently must rely upon the judgments of "dailies-colorists" to render their images into the electronic domain so that the previous day's efforts may be evaluated. Preferably, these dailies can be obtained on ¾" tape, as opposed to lower-resolution ½" VHS tape.

Worse still, "dailies" have begun to turn into "every-other-dailies," or even "weeklies." Nowhere is this phenomenon more apparent than in the breakneck realm of television production.

When Ron Garcia, ASC began to face these scenarios over half a decade ago, he was troubled, to say the least. "Every cinematographer has to have a reference, no matter what it is," he relates. "Some take black-and-white Polaroids [of their setups], while others get cassette rolls of the stock they're shooting and take color stills to try to get the particular information they'll need during the actual shooting process. As a cinematographer, you want to be comfortable [in your methods]. You need to feel at ease with the lab's work and the quality of the film emulsion — hoping that you didn't get a bad batch of film. There are insecurities all the way down the line [that can shatter your confidence in your work].

"If you don't have *any* insecurities, you're not really pushing your own creative envelope hard enough," he opines. "Cinematographers should always be pushing as far as they can without getting fired. But being 'comfortable' also means making your boss — the director and/or producer — comfortable. You have to make yourself happy artistically, but it's a collaborative business; everyone involved is a part of your [work], and you're part of theirs.

"With the advent of video dailies," he continues, "my problem was to basically try to communicate a personal, subjective vision to the colorist — to convey the images that were in my head. But how do you do that? Lab color-timers talk in terms of printer lights. Telecine colorists talk in terms of vectors and signal loss. But how do you express that a particular green is the green you're thinking of? How do you translate that subjective color into numerical values? I found out that I couldn't.

"What we need as cinematographers is a method of communication so that we know that colorists or timers, who perhaps have a different eye-sensitivity to colors than ours, will see the same thing we see," he submits. "The only way I had found to achieve that was to sit down with the colorist, look at the same image, discuss that image, and change it then and there."

Added to Garcia's frustrations, in light of the vagaries of NTSC video standards, was that one set of the same dailies transfer could have a multitude of "looks" — depending the individual make, model and setting of monitor, as well as the environment in which the television set is viewed, which affects the perceived contrast, color saturation, hue and overall tonal range of the images. "Even though an NTSC television has setup bars," he notes, "there are variances in manufacturing when they spray those phosphors on the glass. From the morning's spraying to the afternoon's spraying, it's slightly different. Those variances change the hues and values of an image on a screen."

He elaborates, "When I realized this, I started to read *The Reproduction of Color*, written by Dr. R.W.G. Hunt. I learned that back in 1931, a group of scientists decided to standardize how we measure and perceive color. To do that, this team created the CIE (Commission Internationale de I'Eclairage) color-space, which is a mathematical formula that defines color."

Inspired, Garcia began to experiment with a portable, low-end video film scanner called a Fotovix II, which he used to convert negative or positive stills into composite video. This basic system helped him to evaluate the quality of his images while he was shooting the pilot for the series *Twin Peaks*.

Garcia had also been among the first to purchase one of Apple Computer's Macintosh home computers when they debuted in 1984. "I fell in love with Macs right away," he reminisces. "The quickly developed color-display capability which enabled the new desktop-publishing industry to grow into color CMYK preprinting capability as well. More and more, I started to find similarities between what I could do in Photoshop on my Mac and what the high-end, postproduction telecine colorists were doing on their daVinci color correctors.

Garcia would later realize that his personal computer had a potential application for his cinematographic craft. True revelation didn't strike him until he attended a computer expo and witnessed a desktop publishing system produce a CYMK print that looked *exactly* like an image displayed on its monitor. He recounts, "I was looking at phosphors, spectral colors, coming off this monitor, and then looking at a print which had light hitting the picture and reflecting back off. The two types of light were totally different, but [the images] looked the same! I thought, 'If they can do that in desktop publishing, why can't we do that in our industry? Why can't we have that kind of control?'"

Fueled by this notion, Garcia purchased a Video Vision video-card for his Mac so that he could "grab" selected frames off his ¾" dailies and import them into his computer. Starting with these digitized frames, Garcia began to explore the image manipulation capabilities of Adobe's Photoshop software.

Two years later, Garcia was hired to shoot the pilot for the CBS series *EZ Streets*. Intending to render the show with a cold, gray, desaturated look that the production termed "Detroit-ashen," Garcia tried to prepare the producers for the inevitable confusion when the first set of dailies came in. "I hadn't shot a series in 10 years, and on this project we were going to desaturate the colors quite a lot, so I was already worried about how I was going to explain the look I wanted to the colorist. The executive producer, Paul Haggis, knew in his mind's eye what look he wanted, but felt he wasn't getting it in the first week's dailies. So I went to all of their television sets and tried to get them the "look" I intended — dark, desaturated and with high contrast. But with the mid-range value of the transfer on the dailies — the standard today for cost reasons — the picture still didn't look right. I could tell that Paul wasn't happy. The familiar phrases I use in a situation like that, such as 'When we time it in final color correction, it's going to be dark,' didn't really work. He'd reply, 'Well, I turned my set down and there's still *brightness* all over the place!'

"No matter how you explain things," he confides, "if [executives] don't see [the look they've imagined] coming out of their own television screens, their subconscious voice says, 'Why doesn't this look as good as when I go and rent a video? I put those rentals in my machine and they look great, but *my* dailies don't!' Of course, dailies are corrected off the negative at a mid-range, but your final timing is not corrected off your negative anymore — it's too expensive, and they don't want the negative touched again. Your dailies are usually transferred to 1" or DigitalBeta, which becomes your *new* negative. The dailies-timer wants the images to look good, but the master he really serves is the colorist, who is going to do the final broadcast timing. The tape-to-tape colorist dictates the terms: 'I don't care what these guys say, you're going to give me a mid-range rendering of that negative so that I can balance it scene-to-scene at the final timing.' So when you get that [mid-range] dailies transfer, you basically have to go over to the producer's or director's television and knock down the contrast,

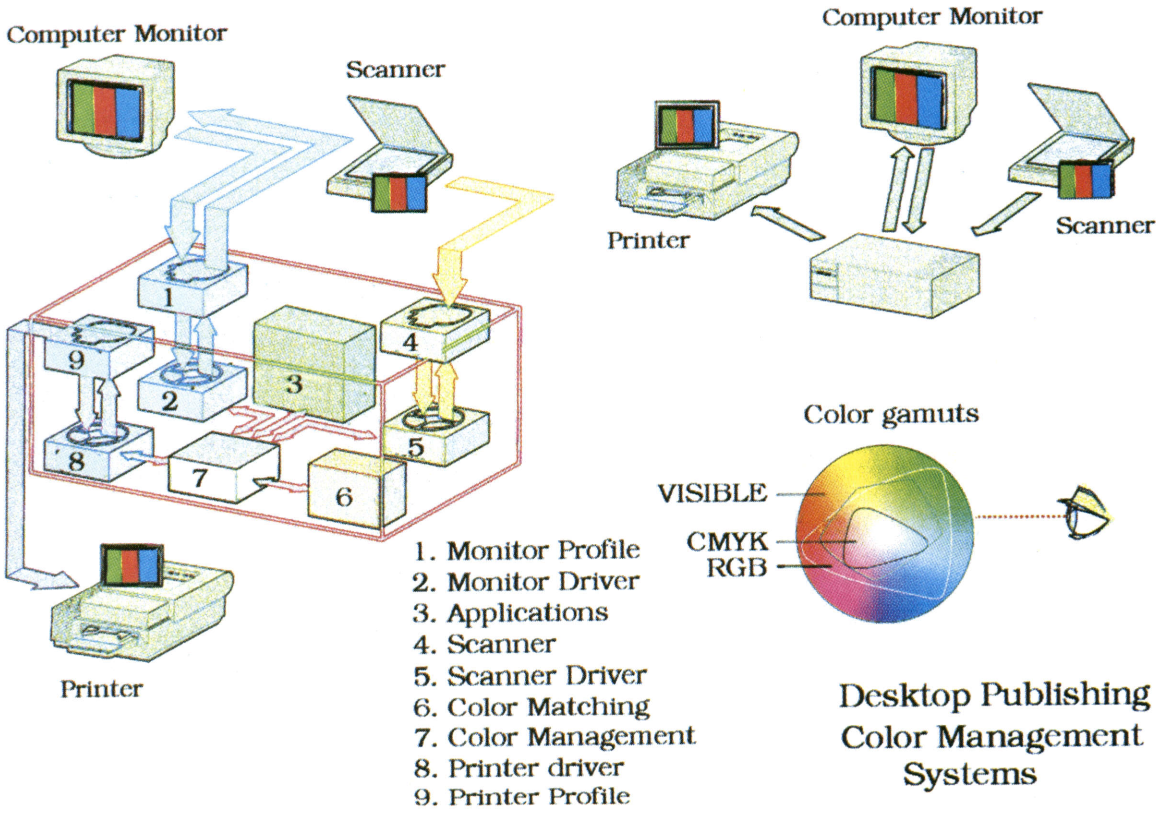

Diagram courtesy of Ron Garcia, ASC.

A graphic representation of Garcia's Unified Color System.

or the color-saturation, or whatever it is that the producer or director is looking for on that job."

In the case of *EZ Streets*, turning some buttons and twisting down the color levels wasn't enough, so Garcia "took those dailies and frame-grabbed images from each camera setup into my 840AV Macintosh. I then transferred the files to my Mac 5300CE laptop, where I opened the images in Photoshop and color-corrected them while I was on the set."

Garcia saved his corrections to a CD-ROM — in an IBM format, because the lab's system was IBM — and sent the disk to the colorist. At the telecine transfer, the colorist brought Garcia's corrected images up on his monitor and used them as a guideline for the next set of dailies. "Those dailies came back looking pretty close to what I given him, but not perfect," the cameraman confides. "The colorist's IBM monitor wasn't the same as my Mac monitor, and I didn't know what he was really seeing, so I timed my next dailies on my Powerbook and sent the entire computer to him! I was getting desperate, but the results were getting closer."

Making headway, Garcia decided to use his system to put the *EZ Streets* producers at ease. "Understanding the problem, co-executive producer David Latt gathered up various supervisors: Paul Haggis; Anita Addison, the CBS executive in charge of the show, who was also going to direct one of the episodes; Billy Redner, the postproduction supervisor/associate producer; and the final colorist from Anderson Video. We all sat down at the editor's Avid, which happened to have Photoshop software on it. I then brought up my frame-grabbed dailies and said, 'This is where I would like to go with this picture and this is what I think you want.' I then color-corrected the image right there in about four minutes. Paul Haggis nodded and then said, 'That looks good, but last week you shot this bar sequence and it was *really* bright. That scene is never going to come down!' I had been spending an extra hour and a half every night frame-grabbing my dailies — every single setup — so I pulled up that sequence, and with one turn of the dial, the image got all contrasty and dark. Paul went, 'Oh... yeah... wow... Good job!' He then walked out the door, happy as a clam and feeling good about what was going to happen [with the look] because it was right there in front of him."

Garcia then took his experiment one step further. "I decided that wardrobe and the art department needed to know what was going to happen [with the desaturation look]. I showed the production designer where I was going with all of the colors that he was putting on the walls, and said to him, 'This is what's happening with the timing, and this is how it's going to change.' In response, he changed some of his colors for the set. The wardrobe person saw my corrections and what was happening to the blacks, blues, grays, and browns. Everybody got to see the results right there in real time."

However, Garcia still faced the problem of establishing that same level of interactivity with the lab while discussing his dailies. Without physically being at the same location, how could he guarantee that the lab's monitor was displaying exactly the same colors and values that his Mac did for his color-corrected stills? Desktop publishing held the answer.

Offers Garcia, "I have an image on my computer screen, and by using Photoshop, I can manipulate and change all of these colors and values. That monitor is fed information from a video card which knows exactly what those colors are on that monitor, because they're all measured in 0s and 1s — it's digital. So when I save an image that I've altered, all of my contrast values, colors and hues get saved in digital code.

"For example, say I want to print out a color image I see on my screen, and I want that image to be as accurate as possible in print form. The desktop color management system uses the built-in Color-Sync software to look at the 'color-gamut' of my computer monitor — which is the range of all of the colors that the monitor can produce. Basically, it makes a 'monitor-profile' and compares that to the CIE independent color-

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Whether inventing computer systems or filming, Ron Garcia, ASC, is in love with color.

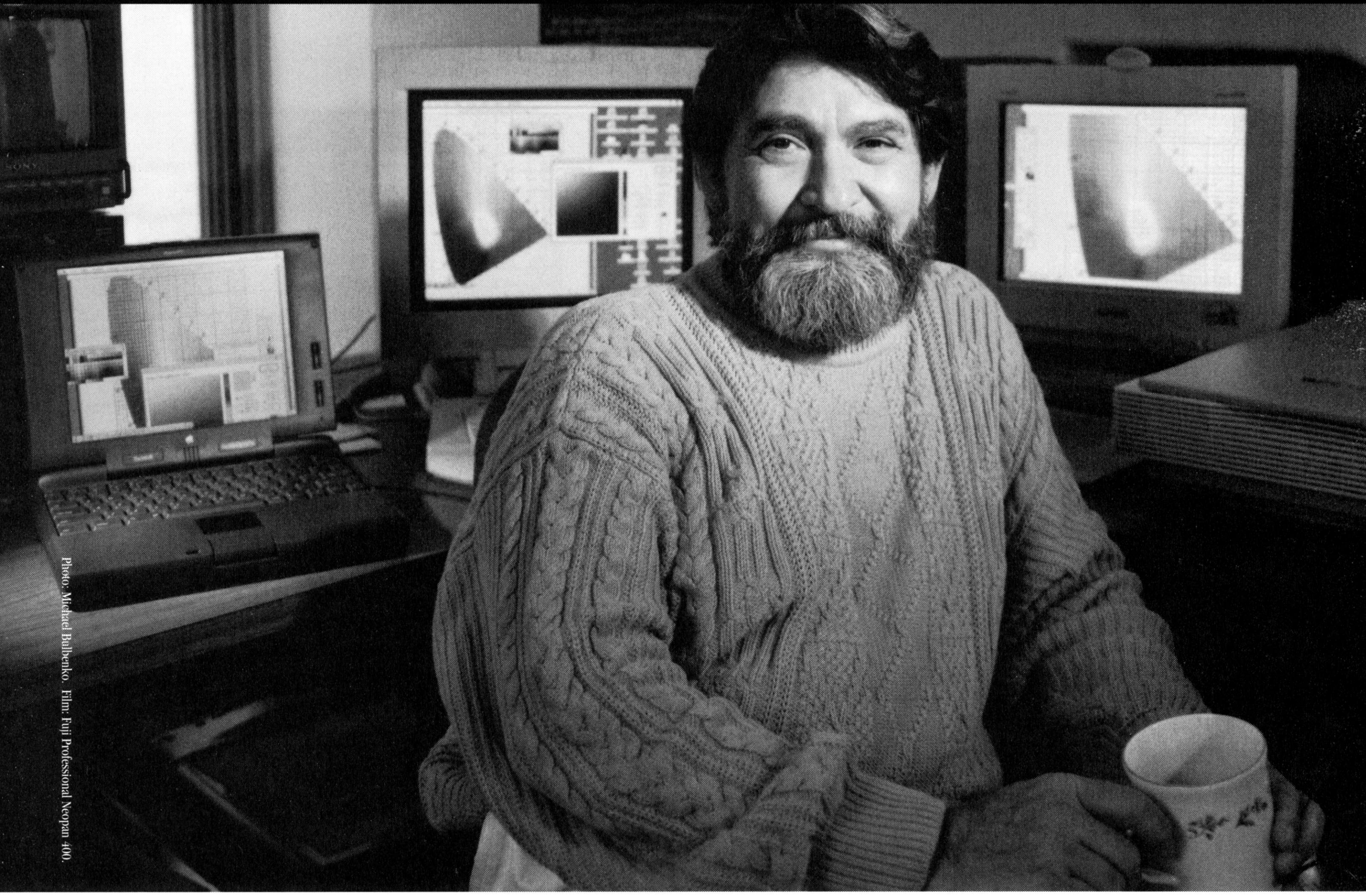

Photo: Michael Bulbenko. Film: Fuji Professional Neopan 400.

Good thing he uses FujiFilm.

Ron Garcia, ASC, "eats, sleeps and dreams images." In living color. That's why the Director of Photography has spent every spare moment for the last three years at his Macintosh. Garcia has invented an invaluable color management system for the motion picture industry. It allows cinematographers to access their dailies through a personal computer, color correct images on the spot, then send them back to the lab to be matched to the DP's exact choices. "The system eliminates trial and error," says Garcia, who has a dual background in fine art and as an electro-mechanical packaging designer for the Apollo space program.

Garcia has counted on FujiFilm to eliminate trial and error since 1973, and it's given him worry-free time to indulge his passion. For one thing, Fuji's customer service is "absolutely, incredibly supportive," he says. "Anything I need, they're always there." And the film delivers consistently great images. That's what this inventor/DP appreciates most — "the color it gives me and the control of that color."

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Ron Garcia, ASC, has earned an EMMY, ASC and Cable ACE nominations, plus a Cable ACE award, all for projects photographed on FujiFilm. His latest project is the critically acclaimed series: EZ Streets.

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space. The color management system then calculates the difference between the two devices and chooses the colors closest to the CIE colors that the two devices can produce while staying within the printer's gamut range."

Garcia found an affordable solution to his dilemma by purchasing a Macintosh monitor-calibrating device called the Colortron II Digital Color Ruler, manufactured by Light Source. He explains, "Using the same method as desktop publishing — but substituting the printer device for another computer monitor at a distant location — I realized that I could change my dailies on my computer while on location, using the color management software and the Colortron as a reference device to ensure a proper match between my monitor to the lab's computer.

"The Colortron device attaches onto the monitor's screen and calibrates it," he reveals. "It calibrates itself to the CIE standard, runs through the computer's graphics card, finds every single color that the monitor can produce within its scan-guns, and re-aligns the guns — centering them to a standard 'white-light' value. This white-light baseline is something that I've discovered to be a catalyst for [the system's standardization process]. Once that monitor is set, you can line up another monitor and get the pair of them — referenced to the CIE — as close to each other as possible."

Garcia demonstrated his ingenious new system at an ASC dinner meeting last November 25. He recalls, "I had a 17" Apple monitor, a 15" Sony monitor, and a Powerbook, which features an active-matrix LCD with thousands of colors. I placed all three of my monitors alongside each other. I then took the same image and copied it to each monitor, each of which had a different video card. I didn't tweak with the controls on the monitors, but had the calibrator balance these three totally different devices. When I brought that image up on all three, they looked exactly the same. The other ASC cinematographers were as amazed as I had first been. It *is* possible to get two monitors to be really close without fiddling with them.

"Dr. Hunt's book explains why the SMPTE color bars were designed," he adds. "In the first days of color television, they were shooting live color video; they wanted to cut to a film chain, and they wanted the live camera and the projected film chain to balance so that it wouldn't look strange when they cut back and forth. The corruption was that everybody was assuming that the SMPTE color bars would set up everything in the film-to-video world."

Garcia is now in the process of patenting a system that will feature a custom color chart. The chart utilizes its own light source that matches the "white-light" reference utilized by the Mac's Color-Sync and the Colortron's calibration program, providing a closed-loop constant against which cinematographers will be able to analyze their negatives. Additionally, he is developing a communications protocol with several labs that will enable cameramen to access their dailies-colorists' framestores from the telecine session, download them to their own computers from any remote location for manipulation in Photoshop, and re-upload them for the colorist to use as a reference.

"By going through this process, I started to really respect the work of the colorist and the timer," Garcia concludes. "In one instance, I wanted to achieve a certain color, and I tried to manipulate my image in Photoshop, but I couldn't get it. It wasn't there! It was great lesson for me. Sometimes cinematographers want a special color that's not possible to achieve because of the way it was shot, but don't have the experience to know it. Some cinematographers *think* they know, and accuse the timer or colorist of screwing up their film, asking, 'What happened to the color I wanted?' The colorist or timer has to sit there and listen, perhaps knowing all the while that you've done something stupid, like photograph the scene with too much blue in the negative — making it impossible to achieve the special color you *thought* you could get." ◆

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Auto Erotic

Director of photography Peter Suschitzky discusses the methods and motivations behind his latest feature, *Crash.*

Interview by Allen Daviau, ASC and Fred Elmes, ASC

Edited by David E. Williams

English cinematographer Peter Suschitzky recently arrived in Los Angeles to oversee the color timing of *Mars Attacks!*, the alien invasion spoof directed by Tim Burton [see *AC* Dec. 1996]. Taking a break from this task, he joined fellow cameramen Allen Daviau, ASC and Fred Elmes, ASC at the New Line Cinema screening room in Beverly Hills to watch *Crash*, Suschitzky's latest collaboration with Canadian director David Cronenberg.

With *AC* editors Stephen Pizzello and David E. Williams in tow, a leisurely dinner followed, during which Daviau and Elmes posed questions regarding the picture's unique visual approach and the means by which Suschitzky tackled its controversial subject.

Based on the 1973 novel of the same name by English author J.G. Ballard, *Crash* concerns television commercial producer James Ballard (James Spader) and his wife, Catherine (Debra Kara Unger), both of whom are engaging in kinky extramarital affairs. Later, the pair share details of their indiscretions, illustrating their emotional detachment. After being severely injured in a violent, head-on automobile collision, Ballard is thrust into a subculture of hedonistic extremism and becomes immersed in a nocturnal cult fixated upon the anticipation, and outcome, of car crashes.

Accompanied by Dr. Helen Remington (Holly Hunter), the scarred survivor of the crash he caused, Ballard soon meets Vaughan (Elias Koteas), the leader of the bizarre cabal. The producer is captivated by Vaughan's dogma about technology's ability to reshape the human form, and soon introduces his wife to this new interest, exposing them both to its dangers. Vaughan's obsessions — amplified sexuality wrapped in twisted chrome and steel — later become their own, leading to a series of graphic and often violent couplings.

This link between injury and passion has been a primary focus of *Crash*'s detractors. As a result of their ire, the film has been banned in various countries, and its U.S. release was postponed from late 1996 to March of this year. (See accompanying interview with director Cronenberg for further details.) However, the film also has its champions, and earned a Special Jury Prize for "audacity and innovation" at last year's Cannes Film Festival.

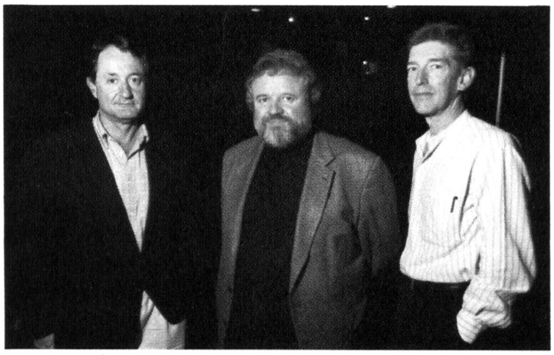

Photo by Chris Pizzello.

***Post*-Crash: Suschitzky, Daviau and Elmes at the New Line Cinema screening room in Beverly Hills.**

In recognition of the film's artistic daring, *AC* hereby presents excerpts from the unique interview which followed a screening arranged by ever-accommodating Fine Line Pictures publicist Juli Goodwin. Details about the key participants are as follows:

Peter Suschitzky's other credits include *Where the Heart Is, Valentino, The Rocky Horror Picture Show, The Empire Strikes Back* and *Immortal Beloved*. His previous projects with Cronenberg are *Dead Ringers, Naked Lunch* and *M. Butterfly*.

Allen Daviau's filmography includes *E.T: The Extraterrestrial, The Color Purple, Empire of the Sun* (also adapted from a novel by J.G. Ballard), *Avalon* and *Bugsy*.

Fred Elmes' credits include *The Killing of a Chinese Bookie, Blue Velvet, River's Edge, Wild At Heart, Night On Earth*, and director Ang Lee's upcoming feature *Ice Storm*.

Allen Daviau: Peter, I have always admired the choices you have made and the variety of films you have done over your career. It's interesting that you have *The Empire Strikes Back* on your resumé among these smaller, offbeat films.

Peter Suschitzky: As you can imagine, it would have been easy for me to have done a lot of effects films after that. But after doing one big effects film, you don't want to rush right into another.

Daviau: Absolutely. That kind of typecasting can happen very quickly to any cinematographer. After *Fearless*, I was offered every 'airplane in trouble' picture that went into production. Coincidentally, I was also up for an 'aftermath of a car crash' picture not long after that.

Fred Elmes: But I'm sure the story for that film was nothing like what we saw tonight.

Daviau: No, not at all. I really admire the fact that this picture is very stylized, but always within the realm of naturalism — it's not as 'out there' as highly-stylized piece like *The Crow II*. That's a very delicate thing you have done here.

Elmes: I think the world

Catherine and James Ballard (Debra Kara Unger and James Spader) hit the road in search of visceral thrills. Suschitzky sought unusual angles for the picture's many car sequences, often utilizing the Motocam system. For process trailer work, interactive lighting (both reflected and direct) added a heightened sense of movement.

Photos by J. Wenk, courtesy of Fine Line Features.

that you and David [Cronenberg] created exists right there on the edge of reality, so to take it to another plane visually — say, to another level of color — would have been out of place.

Suschitzky: I think so too. I think David feels that whatever subject he's dealing with is always so unusual that it's best to avoid getting too stylized. While we were doing *Naked Lunch,* I suggested that perhaps we should go Expressionistic in design, in light of the hallucinations and trips that the main character goes through. But David felt strongly that the picture should always be based in reality, and he was right. We had the same production designer on *Crash* as we did on *Naked Lunch* [Carol Spier], but we had such a small budget on this film— about $6 million — that it wasn't an issue. On *Crash,* we didn't build nearly as much as we did on *Naked Lunch;* instead of sets, we relied mostly on actual locations in Toronto.

Elmes: But the stylized city you've created for the film within this real city is very elegant. It's very clean, and there's nothing superfluous — you see just the right parts, with the freeways in the background.

Daviau: But there was some work done on stage — the apartment scenes, for instance?

Suschitzky: Yes, throughout the film we have scenes in [the Ballards'] apartment, and that was a mixture of location and studio work. There is a sequence that takes place on their balcony overlooking a freeway. Well, everything looking out is, of course, a location, while the reverses were done in the studio. We actually had a hothead on location and for a moment I thought about just extending it out and getting the shots looking back in. Of course that would have been impossible since the interior of the location apartment didn't give us what we needed for the other scenes, so we built the interior elsewhere — which didn't match the location.

Daviau: When you're matching stage lighting to what you've already shot, do you use something like a Moviola picture head with a piece of print to look at the master shot?

Suschitzky: Yes, exactly, while we're on the stage. The gaffer also always keeps a diagram, which includes the gels we've used. But if a scene is played back for me, I can more or less re-create it. It's mostly in my head anyway, but replaying the scene on film can be a great help.

Elmes: It's certainly better that the video version of that tactic — with a VHS tape standing in as a reference.

Daviau: Has anyone tried to get you to do a feature film without film rushes?

Suschitzky: Actually, that was the case on *Crash.* The budget was very tight and the production manager asked, 'Is it okay if we just use video dailies?' And I said, 'No, it's not. But I'll tell you what: you can keep me happy by showing me just one take of each setup.' That way we managed to save money.

Elmes: I did that exact thing on an independent film I recently finished, *The Empty Mirror.* We'd print one selected take, screen it, and then take home a daily cassette at night to see what we had in the performances.

Daviau: Well, what I wonder about with video dailies is, what are they going to do when it comes

Top left: *During the filming of Ballard's head-on collision, a dummy is launched through the other driver's car windshield. The picture's restrictive budget demanded that the crashes be filmed in a minimalist manner, which jibed with director David Cronenberg's desire to "shoot action scenes without making an action movie."* **Top Right:** *Catherine and Vaughan (Elias Koteas) bond at the scene of a highway mishap. Suschitzky primarily utilized small tungsten fixtures for the many night exteriors, relying heavily on Fuji's 500 ASA Super-F 8571 stock.* **Bottom right:** *Gabrielle (Roseanna Arquette) and Dr. Helen Remington (Holly Hunter) take a stroll through the auto graveyard. Because of poor weather conditions, 250 ASA Fuji 8551 was used for many exteriors, especially on locations situated beneath freeway overpasses.*

time to do a preview screening of the film if they have no workprint to put together and screen? The only option is to go back in and do a really terrible invasion of the negative…

Elmes: … and print additional take you haven't used in order to put something together to show people. It's a real problem. In addition, the printer lights on these various print runs will never be the same, so there is often a lot of mismatching even within very simply cut scenes.

Daviau: Part of the cameraman's responsibility is to produce a good, representative cutting copy that can be shown to a preview audience. So the notion of video dailies is the biggest false economy in the world.

Elmes: Technicolor in Los Angeles has a system by which you can track timing lights from your dailies all the way through to your answer print. That way, when you like the way the dailies looked, the key code is used to track the timing lights to your first answer print. You can also use that information for reprinting a scene if necessary.

Suschitzky: Well, you'll notice too that due to the fact that video dailies must be transferred, you'll get your rushes much later in the day than you otherwise would.

Daviau: And there are also cases where you have a director who doesn't come to projected rushes, and only sees the film on video, or on the Avid or Lightworks screen. Directors like that will have no idea what you're talking about, because they haven't really seen the same thing. There is no direct correlation between video and film. And with all due respect to the various charts that people have designed to deal with this problem, it still hasn't been solved.

Peter, you're based in London…

Suschitzky: Yes, but I never work there — I haven't since 1984.

Daviau: You don't bring a British crew with you when you shoot in Canada or in the U.S.?

Suschitzky: I don't even try to. There are wonderful crews in both places, and I believe it creates some resentment if one brings people in from the outside. *I'm* enough already, and I feel privileged to be invited, but I think it's wrong to bring in an entire crew.

I often prefer to operate myself, especially on a film with the scale of *Crash*. I feel closer to the movie if I'm looking through the camera, as if I am the first audience to see the movie. I can see my mistakes much more quickly! On this last picture [*Mars Attacks!*], we were dealing with an extremely large production, and I was lucky enough to work with one of the best operators around, Ray de la Motte. But I do get more of a kick out of it if I'm looking through the camera.

Elmes: How did you and your grips plan the rigging for the cars and the shots you wanted? And how did you decide what could be process trailers and what had to be done for real?

Suschitzky: If the scene concerned the actors in the car, we would definitely use the process trailer, but if we had to see the car come into frame, we would naturally use the real thing. My gaffer and I tried to think of different ways to enhance the sense of movement with the lighting. We were generally shooting at very low light levels, so we came up with a rig that involved a reflector and a lamp or two shining into it. By either moving the reflector or the lamps, plus some additional lamps that were panned in and out at the sides, we got a satisfactory effect. Sometimes it would be too hard and spotty, and you could even see the joins in the reflector material, but it usually worked. Those were mostly tungsten lights.

We were primarily working with very small, lightweight sources, although for the exterior scene in which some characters recreate James Dean's car crash for an audience, we did use a Musco Light. Unfortunately, it burned straight through the gel frames that we had spent hours putting up on it, and the scene looks much bluer than I had intended. I actually don't like that electric blue look — it's a mistake in the movie.

Daviau: There is so much car work in this film that I had to wonder how much was poor-man's process.

Suschitzky: Well, not much. In fact the only shots done with poor-man's process were the detail shots of the dashboard, or things of that nature. As I'm sure you've gathered, there were a number of risky things to shoot on this film, in terms of the car work. The rain scene at the end of the picture was done with the Motocam system, which is basically a motorcycle with a sidecar. It allowed us to get the camera really low, and it's a powerful bike, so it's very maneuverable.

Elmes: What I liked in your car work was the wonderful use of reflections and reminders of the world going by. So although we're looking at the people inside of this claustrophobic capsule, we see things passing by, sometimes just inches away. There were several times during the chase scene when the camera swept between cars and ended up only a foot or two off the bumper of the Lincoln.

Suschitzky: [Laughs.] We had some excitement shooting that particular sequence. The elevated freeway we were using was incomplete, so it only ran for a distance before coming to a very abrupt end. We were using this stretch in both directions. And this was fine if you are in the normal, 'correct' direction. Well, on one shot, our driver had forgotten that he was going in the 'wrong' direction — at night, in the rain, on this incomplete freeway — and we missed the off-ramp and were suddenly faced with a precipice. We had to scream for him to stop because we were just a few yards from the end of the ramp; we came very close to going over the edge!

Very few people realize how long it takes to set up a shot on a car.

Elmes: This is very true, as I found out during my experience on *Night on Earth*. When Jim Jarmusch conceived the film, he thought of sets and set pieces in connection with performances. Well, having two or three actors in a car was like, 'I've got 'em! They're not going anywhere!' But he didn't fully realize the complexity of keeping it visually alive.

Daviau: I absolutely loved some of the high-from-outside angles you got in *Crash*. Consider them stolen! [Laughs.] One of the most stilted and overused angles in car photography is the two-shot of the front seat from the hood or towing vehicle. God forbid there are people in the back seat. I once got a director who let me do a car sequence strictly with profiles. It worked really well, because I was able to use the entire hood for the lighting-effect rigs; I've just never bought the old dashboard-light method, because it is both so restrictive and artificial.

> "I wanted to make *Crash* more contrasty and hard, although sometimes I wonder if I went too far with that."
>
> — Peter Suschitzky

A good deal of *Crash* takes place at night. Did you base a lot of your decisions on the texture of the film stock that would have the speed to do that, and how you'd carry it through the day's scenes?

Suschitzky: My process of finding a look for a film comes directly from the material. The direction which I take may change once I see the locations, the actors, the costumes — with each bit of detail — and finally the performances. Earlier in my career I might have fooled myself by saying, 'On this film, go grainy and use bounced light and make it very naturalistic.' But I've settled into a simpler, more instinctual way of working now.

My initial thought about *Crash* was that it was a very bleak, hard story. While it might sound simplistic, I wanted to photograph the picture to look harsher that I normally would do things. The last film I did with David was *M. Butterfly*, which was more romantic, gentle and lush in tone. I know that this new picture looks different from that one, but stepping back I can also see this sort of line I have taken from one film to the next.

One doesn't expect an actor to be completely different from role to role. They are cast because of the qualities they have or can give, and I feel that's also true for directors of photography. We can get typecast, but we also get cast because of the material we have behind us.

I wanted to make *Crash* more contrasty and hard, although sometimes I wonder if I went too far with that. Looking at it tonight I wondered if it was occasionally too unfriendly and ugly. But I suppose it's suitable for the story.

Daviau: It is, absolutely.

The Ballards engage in post-collision lovemaking. Suschitzky lit their sexual encounters in very warm tones — in direct contrast to the film's overall "contrasty and hard" style. He reasoned that by making these scenes more visually attractive, the audience would have a more difficult time avoiding the performers' deliberately confrontational dialogue.

Cronenberg tends to Spader's compound leg "injury" while Suschitzky observes from behind his Panaflex. On an intimate production such as Crash, *the cameraman prefers to do his own operating, noting, "I feel closer to the movie if I'm looking through the camera, as if I am the first audience to see the film."*

Of course, people will want to know what kinds of tests you did to arrive at that choice.

Suschitzky: I did do tests, primarily because we were shooting so much at night. But my choice [for the nighttime work] was really only between two stocks, the Kodak high-speed [5296] and the Fuji high-speed [8571] — *Crash* was shot before 98 became available. I instantly preferred the Fuji. It had much tighter grain and it was much sharper — and not quite as contrasty — at the same speeds. I think the same is still true when it is compared to 98.

Having chosen this 500 ASA Fuji stock, my original intention was to shoot the rest of the film on Kodak. On a sequence change, you'd never notice the difference. But as I thought about it, I considered the fact that our budget was very tight on money, so I asked the production manager to do a price comparison. He came back to me and said, 'I'm not asking you to shoot the film on Fuji, but we would save quite a lot of money.' So I decided to test Fuji's other stocks, and although I couldn't say instinctively that they were better than [what Kodak offered], they compared well.

Elmes: Did you do any pushing?

Suschitzky: I almost never push film, because I think it's always better to underexpose than push; that's just my preference. But there was one scene at the end of the picture — Vaughan and Ballard are driving on the rainy freeway at night — that we couldn't light at all. The area we were covering was just too big, so we shot it with available streetlights. It didn't require pushing, but I really didn't know what was going to happen. I just thought, 'Well, *something* is got to come out.' We had headlights, we had rain, and we had all the reflections that those elements created. There were several locations in which available light took part.

Daviau: Certainly one of the problems you must have had was in blending the available light with the prosthetic makeup that the actors wore. I thought the makeup work was excellent, but I can just imagine dealing with fluorescent, sodium-vapor and mercury-vapor sources.

Elmes: That must have really played havoc. With rubber prosthetics, you never know how they will look until you photograph them. The sharp close-ups looked terrific.

Daviau: Which lenses were you using?

Suschitzky: We were on Primos, without any filtration.

Daviau: Would you say that you shot a thinner negative than you normally would?

Suschitzky: On some of the night scenes, yes.

Daviau: And I assume you were using the 'appropriate' stock for your conditions, such as the 100 ASA stock for daylight exteriors?

Suschitzky: When I could. But sometimes during the daytime we still had to rely on the faster stocks, especially in the garage locations or under overpasses. One example is the scene early on in which Ballard arrives to inspect his wrecked car at the impound lot. That location was all in the shadows under a freeway structure. We used the medium-speed Fuji stock for that sequence — 250 ASA [8551] — but we were still wide open because the weather was so bad. It was freezing cold — down to -8°C — throughout the shoot, and often overcast.

Elmes: You certainly had some brave actors.

Daviau: There must have been a terrific amount of trust placed in you when they were being photographed in such chilling temperatures with nudity involved. How do you help keep actors comfortable in that situation?

Suschitzky: We were a very small family group on that shoot, and the atmosphere was very conducive to just doing the work, having a nice time, and laughing a lot.

Daviau: I always find this a difficult question to answer, but is there a sequence that you are most proud of in the picture?

Suschitzky: Well, I like the look of some of the love scenes, particularly the one between Ballard and his wife. I tried to make that more attractive to look at; I didn't try to be hard and gritty.

Daviau: That's certainly an oasis in the middle of the film.

Stephen Pizzello: Did Helmut Newton's photography factor into any of the discussions you had with Cronenberg? The opening sequence, beginning with the shot of Debra Unger's shoes beneath an airplane wing, is reminiscent of his work.

Suschitzky: No, but I did at one point joke to David that Roseanna Arquette's character is sort of a cross between Pinnochio and a Helmut Newton model. [Laughs.] Of course, I'm very familiar with Helmut's work, and we have actually worked together occasionally on commercials.

Daviau: Was it calmly assumed at the beginning of the shoot that you would be getting an NC-17 rating? Was Fine Line [the distributor] comfortable with that?

Suschitzky: That was all decided up front. There was no way this film could have been made without that assumption up front.

Daviau: The picture certainly makes its commitment to [that rating] early on. Even though you have done three other films with Cronenberg, what discussions did you go through to decide the look of this picture, and what questions were asked by each of you?

Suschitzky: I hope I'm not going to disappoint you, but David and I have a very instinctive relationship and work together very easily without many words. We don't often talk about the specifics of the look. On my first experience with David, after I had read the script for *Dead Ringers*, we did go through a lot of that. We were on opposite sides of the Atlantic Ocean, just talking on the telephone, and I expressed how I saw that picture as being quite cold and elegant. On *Naked Lunch*, I simply explained that I felt it needed an Expressionistic approach. [The setting] reminded me of paintings of that era — 1910 to 1935 — which are very important to how I see things. We didn't really make the film look like that, but those ideas were in my subconscious. On *Crash*, I've already described the hard look I was after, but we drove around Toronto a bit in his car and looked at the roads we would be using. Still, we didn't discuss things too specifically. David loves driving, and he took me around some very fast bends. [Laughs.]

David E. Williams: Photographically, the crash sequences seemed to be done in a way that would actually drain away any suspense or excitement in the usual cinematic sense.

Suschitzky: What David said was, 'We don't have the money to make this an action movie, and that's not my intention anyway.' So the crashes were planned in a very minimalist way. For instance, for Vaughan's crash at the end of the picture, we couldn't shoot him go-

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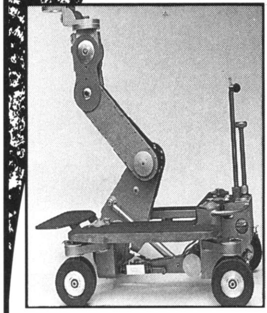

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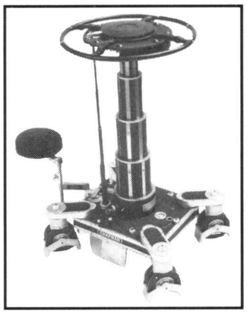

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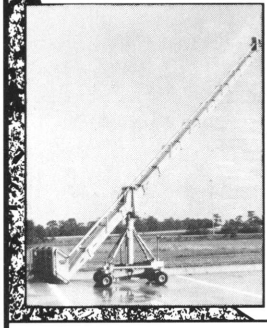

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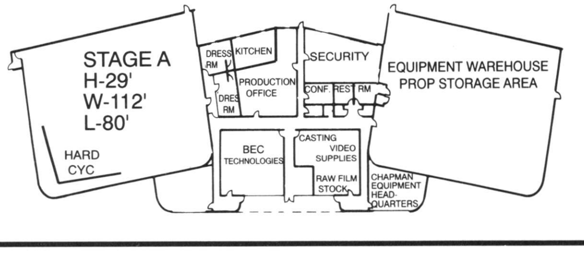

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Feeding his fetish for twisted metal, shattered glass and broken bodies, Vaughan photographs an accident scene. Road flares, vehicle headlights and other fixtures provided Suschitzky with practical sources, facilitating his naturalistic approach.

ing over the edge of the overpass. We didn't have that kind of budget, and we were faced with a very strict time limit imposed by our agreement with the police and the highway department — just six hours of shooting each night. We couldn't afford to shoot long and break that good will.

Daviau: What kinds of safety precautions did you take for the car scenes?

Suschitzky: We often used toy cars on a little road, with our stunt coordinator showing what could be done in a given situation. It then became a negotiation, with David asking, 'Well, then can we do this?' and the scene or shot being worked out from there. Fortunately, since he himself is an amateur race diver of Formula One cars of the '50s, David is very 'car-aware.'

Daviau: Was there a piece of equipment that you really could have used for the driving scenes that hasn't been invented yet?

Suschitzky: [Laughs] Yes, the Pana-Hot Seat — something to keep us warm!

Daviau: When I think about the visual concept for any picture I'm doing, I always like to use the term 'design and discovery.' You start out with some kind design, but you discover what the look of the picture will be along the way. I find that it has a lot to do with the actors — learning to appreciate what their performances are like, and what you discover in their faces.

Suschitzky: I always like to shoot makeup tests just to get to know their faces and to learn which direction the light should fall on them. That also breaks the ice between you and the performer, especially if you don't know each other.

> "I knew going into the film that it would be controversial, but we more or less forgot about that once the production began."
>
> –P. Suschitzky

Elmes: It's great to get the director to sit with you in the theater during test dailies. You might have five minutes of an actor standing there on screen, looking in different directions with different wardrobe and hairstyles, and if you can be objective for a moment, you can really discuss what things look like. Many directors don't feel the need to do that, but they usually love it after they've done it.

Williams: What was running through your mind while shooting graphic scenes that you knew would put the audience on edge or possibly distance them from the material?

Suschitzky: I knew going into the film that it would be controversial, but we more or less forgot about that once the production began. Of course, it's impossible to me to ever experience the picture the way any audience will ever see it. I have seen many more explicitly violent or explicitly sexual scenes in films, and I'm not sure why ours have aroused so much controversy except that they are confrontational and make some people feel awkward. The sex scenes are not just interludes which can be cut out, but part of the structure of the film.

Elmes: Controversial films pose some interesting dilemmas. When you are engrossed in the production, you work very hard to make the film as affecting as you can. Only when you view the results with an audience do you realize the cumulative effect of your efforts.

Williams: An example of that might be the scene in which Ballard and his wife are making love while she fantasizes about the idea of her husband having sex with Vaughan. The sequence is certainly longer than most filmmakers would have dared to make it, with very few shots.

Suschitzky: David has the final choice as the director, but neither of us are what you might call 'fast cutters.' I'm tired of seeing films that are cut and paced like commercials just because there is always a fear of boring an audience. David also likes the idea of intellectual confrontation, so the film is confrontational. He's not going to give you a chance to look away with your mind or your eye. And that feels right. In that particular lovemaking scene, it feels right to hold on that shot of the two of them. You have to strive to find the right tone for every scene that you shoot.

There were just three angles on the actors in that scene, but they was enough. What they're doing and saying is so seizing that one couldn't possibly be bored. Of course, the film does confront the spectator at many times, and doesn't let you turn away from what might be an uncomfortable truth inherent in the material. Most of us want to turn away from that. ◆

Driver's Side

Director David Cronenberg pulls over to answer *AC*'s questions about *Crash.*

Interview by Stephen Pizzello

As the director of such uniquely disturbing and thought-provoking films as *Rabid, They Came from Within, The Brood, Scanners, Dead Zone, Videodrome, The Fly, Dead Ringers* and *Naked Lunch,* David Cronenberg has displayed a persistent interest in the horrors of the human body and mind. In *The Brood,* for example, a woman's psychic anxiety produces a horde of murderous mutant children; in *The Fly,* an overly ambitious scientist finds himself slowly transforming into a winged insect; and in *Naked Lunch,* author William S. Burroughs' kinky, drug-fueled fantasies are realized with hallucinatory relish.

Cronenberg's latest film, *Crash,* based on the novel by J.G. Ballard, presents a psychological futurescape populated by characters who, having lost the ability to connect on an emotional level, engage in fetishistic sex and bizarre car-crash rituals. Like *Naked Lunch,* Ballard's tale was almost universally regarded to be unfilmable, but Cronenberg has managed to turn the author's imaginative but decidedly offbeat material into an intriguing and enigmatic motion picture. After winning a Special Jury Prize at the 1995 Cannes Film Festival, the film has caused a firestorm of controversy during its release elsewhere in the world, and its appearance on U.S. screens promises to be no less provocative.

Photo by J. Wenk, courtesy of Fine Line Features.

***Cronenberg is obviously pleased with his directorial efforts on* Crash.**

AC editor Stephen Pizzello recently flagged down the Canadian auteur to elicit his views on the *Crash* phenomenon, as well as details about his collaboration with director of photography Peter Suschitzky.

***AC:* J.G. Ballard's book seems almost tailor-made material for you. Did it immediately strike you as being something you had to film?**

Cronenberg: Not at all. The book was sent to me by a lady journalist who thought I should make a movie out of it. I found the book to be very difficult, intense and strange. When I finished it, I thought, 'I can't see why [this journalist] thinks I should make a movie out of this book.' So I didn't have an immediate epiphany about putting the story on film.

A couple of years later, just after finishing *Naked Lunch,* I was talking to [producer] Jeremy Thomas, and he asked me, 'Is there something else that you'd love to do, because we should work together again.' I said, 'Yeah, I think we should do *Crash,* do you know that book?' Jeremy got very excited, because he had optioned the book when it first came out. He knew Ballard, and wanted to introduce us immediately.

What was it about the story that made you finally want to do the project?

Cronenberg: I don't mean to sound evasive, but as is often the case with me, I had to make the movie to *find out* why I had to make the movie. It was not something that was obvious to me. I think the book started a process in me that was working away under the surface. I had to make the movie to complete the process. If a movie works, it seems obvious in retrospect that it was the right decision to make it.

Of course, when I read the book, I could see what I considered to be some superficial connections between the book and my earlier work, but now I see that the connections go very deep.

With both *Naked Lunch* and *Crash,* you seem to be making a habit of adapting stories that many people consider to be 'unfilmable.' Did you consciously set out to challenge yourself in that respect?

Cronenberg: No. Not much of what I do is conscious. [Laughs.] It is and it isn't, when you come to major decisions like that. I try very hard not to worry about how I'm perceived, or about the arc of my career. It's only in retrospect that it all has some shape. I have to say that for me, all books are unfilmable. I have a very high regard for prose fiction and fine writing.

As two distinct media, film and books are completely different. One does not supplant the other; if you really want to do the whole *Crash* experience, you should see the movie and read the book as well.

The movie has already generated a considerable amount of controversy, particularly in the U.K., and it seems certain to ruffle some feathers here in the States, where politicians regularly demonize 'sex and violence in the movies.'

Cronenberg: The difference is that the film will be released after the U.S. elections, whereas the Brits were pre-election. I think that timing has a lot to do with [the controversy surrounding the film] — which is not to say that if the movie appeared in the midst of a desperate time for some political party, they might not grasp it as some sort of solution for a problem they have. There's no question that there's a Puritan strain in U.S. life; it's perhaps less obvious than it is in the U.K.

The reaction in the U.K. has been very strange and hysterical. People say to me, 'Well, you must be excited about the publicity,' but the whole thing has nothing to do with my movie anymore. The sad thing is that everyone has heard of the movie, but very few have seen it. And when they finally do go, their expectations will be so deformed by everything they've read that they'll have to see it three times to really *see* it. I don't think of that as good publicity. More than half the people who were ranting and raving hadn't seen it — even the critics. It's like a phantom of my movie was being attacked, rather than the movie itself.

It seems to boil down to an issue of artistic freedom.

Cronenberg: I agree completely. It has to do with our understanding of democracy and freedom of speech. The interesting thing in the U.K. is that during all of the debates, *no one* has mentioned the word 'freedom.' It's as if it's political suicide to mention that word there now, because freedom is equated with license, and they're totally into control through fear.

Why has it taken so long for the film to be released in the States?

Cronenberg: Ted Turner's company bought New Line Cinema, which was supposed to have autonomy. But Turner saw the movie, freaked out, and leaned on the people at Fine Line [the New Line subsidiary that was handling the film] not to release it. They had an argument, basically. The film was supposed to be released on October 4, as it was in Canada, and it wasn't. It was stalled, and then Turner came out in public and admitted that he hated the film and had tried to put the brakes on it. He lost the argument, so now he's just rolling his eyes heavenward and saying, 'It's out of my hands.' I think that's what he really wanted all along — to be able to say, 'I didn't want to release it, so it's not my fault.' He feels that teenagers who see the film are going to do bad things. Teenagers are gonna have sex in cars? I mean, my God, what a revelation! Ted Turner sort of positions himself as a liberal *vis a vis* Rupert Murdoch, but if he's the liberal champion of the U.S., you guys are in big, big trouble.

[Ed. note: AC's attempts to elicit a response from Mr. Turner were unsuccessful.]

You've collaborated with cinematographer Peter Suschitzky several times now. Why does that relationship click so well?

Cronenberg: It's always a mystery when two people click in a collaboration that's as intimate as the one between a director and a cinematographer. It's a matter of temperament and all of the other usual things. I love the European elements of Peter's character, and his approach to filmmaking as a very serious art form. He's not humorless at all, but he does take it seriously. My own approach to filmmaking has basically been split between Hollywood and Europe. Toronto is literally positioned in the middle of those places. I've always been drawn to the more European structures and looks for my films, and that's what Peter has.

How involved do you get with the lighting of your films? How do you and Peter break things down on the set?

Cronenberg: We allow each other to talk about anything with each other. He can talk to me about casting, and I can talk to him about where he's putting his flags. I primarily talk to him in terms of the effect that's being achieved, rather than getting technical about how he should or shouldn't do it. We're in the age of really good color monitors, and I think they're a big help in terms of lighting. I think [figuring out how things will look in the finished film] still requires interpretation, but [the monitor images] are getting closer and closer to looking the way things really will look on the screen. We can look at a frame and talk about what's going on in it and what the light's doing.

The book takes place in London of the future, but you set the film in Toronto. Did you feel that the new location fit the mood of the story? How did you try to maximize the city's futuristic qualities? *Crash* reminded me a bit of the look that Godard created for *Alphaville*, in which 1960s Paris was lit and shot so that it appeared to be futuristic.

Cronenberg: There are a few levels of things that I can discuss in response to that question. First of all, although Ballard's book is set in London technically, and he uses English names for a lot of the roadways and overpasses, the setting felt like North America to me when I read the story. The cars in the book weren't Morris Oxfords, they were '58 Buicks. When I told Ballard my take on that, he completely agreed with me. He has a yearning for America, especially when it comes to a car like a '63 Lincoln. A '63 Lincoln on an English road is a strange anomaly. It's not at home there, but it is in Toronto. The car is iconic, symbolic and metaphorical in the film, but not in the same way [as in the book]; a guy riding a Harley through the streets of London is a statement of a particular kind, but it's quite different if he's riding it through the streets of L.A.

I felt that the book was always spiritually set in North America, and so did Ballard. In a way, by the time I was ready to make the movie, that had already been unconsciously decided on my part; New York is a special case, and so is L.A., so what do you do, go to Chicago? Toronto was the perfect place.

The visuals in this film seem a bit less elaborate and low-key than the wild images of some of your previous films.

Cronenberg: I think it *is* a very elaborate scheme, but it's invisible. The logistics were actually quite complex, because we wanted a very controlled look. We were shooting outside, and we didn't have the budget to light five miles of road, so we had to integrate the available light. Some of the locations were chosen for the type of light we would be dealing with. We had to combine what was available with the elements we could control in the foreground. Often we were carrying lights on a trailer towing a car, and the lighting would just precede the frame. So it looked as if we'd lit lots of road, but we were really only lighting the section we were on, as we moved.

Peter told us that his biggest challenge was shooting the car-to-car footage. What was the toughest aspect of those scenes for you?

Cronenberg: Oh, everything. It's the detail that you ignore that kills you finally. You have to try to subdue every obstacle. Getting the roads was crucial. I was watching some movie on TV the other day and I said to myself, 'Uh oh, we're on a deserted stretch of unfinished highway, there's a car crash coming up.' I could just sense it coming. To avoid that predictability, I really wanted the roads in *Crash* to feel lived-in. We *were* offered the use of a highway that was under construction, which would have made things very convenient, but it had that same boring feel, so I said no.

We actually got the use of roads in Toronto that no one's ever shot on; we shut down some major internal freeways. Part of the reason we were able to do that was my relationship with the city over the years, and part of it was that they were very excited that we were shooting the city as Toronto, and wouldn't be changing all of the street signs to make it look like Chicago. It was a matter of civic pride!

It's a wonderful playground to have those kinds of roads at your disposal. But it also created a paradoxical situation in which Peter and I had to shoot action scenes without making an action movie. I had to keep telling the stunt guys, 'No, tone it down, I don't want the triple-flip and the explosion.' We did no slow-motion shooting; everything was done at 24 frames, and it was a very deliberate choice. Two of the most photographed things in movie history are sex and cars. For reasons of both personal ego and cinematic tone, I wanted to shoot those things in a way that no one had ever seen, but not in a spectacular way. This required us to make many small aesthetic choices, such as mounting

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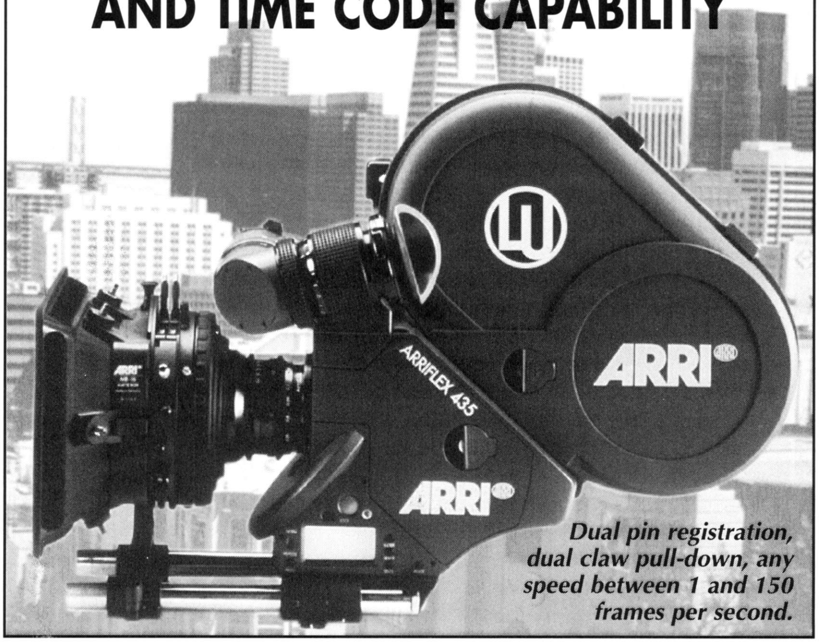

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the cameras on the cars just off the normal axis, or splitting the frame with the guy driving the car on the left and the roadway on the right.

It's folly to think that you're going to find an angle that no one has used before. You have to rely on an accumulation of small details to create the feeling in viewers that they've never seen cars shot in quite the same way. Every day we made a little prayer to the gods of cinema that we could find a subtly different way to do everything.

The film has a lot of intriguing symbolism. In the carwash scene where Vaughan is groping Ballard's wife in the back seat of the Lincoln, the heavy strips of material cleaning the car almost seem like extensions of Vaughan's fingers.

Cronenberg: That's a lovely perception, because when people talk to me about technology and what it's doing to us, I always reply, 'What are you talking about? Technology *is* us.' Technology doesn't come from outer space; it's an extension of us, almost an incarnation of human will.

Those scenes lend the film an interesting subtext. Did you plan to use symbolic visuals all along, or did those ideas occur to you later?

Cronenberg: It's an organic process. When you're directing a movie, you're making literally thousands of decisions a day, and your orientation to the material is guiding you. It's partly intuitive, because you're usually shooting out of sequence and you're working with actors and lots of other contributors. You're being guided on many levels by many things, and if it all works, at the end it's all integrated and it works in the movie. It's not a process where you make a list of 'stuff' — you know, 'Here's a list of metaphysical stuff, here's a list of symbolic stuff, here's a list of filmic stuff.' It's a constant process of integrating all of these things. For example, we decided to use bruise colors for the costumes. As soon as we made that decision, it affected everything, including the upholstery in the the wife's Miata, which is a purply color. We had the car reupholstered just for that reason. In the book, her car is white, but no cinematographer's going to want you to have a white car, so we made the car silver. We had to paint a combination for the car that didn't really exist in the Miata line.

So part of the lighting and set decorating was done with the clothes colors in mind. That became a conscious decision, and it gave us an orientation on many levels. Physically, these were the right colors for a story as dark and moody as this, and symbolically, they worked for the characters, who are very bruised people trying to recover some kind of life.

The point you made about the futuristic look is very interesting, because there's nothing in the book that's futuristic, even though lots of people think of *Crash* as a sci-fi book. When you read it, it's very hard to justify the 'sci-fi' label in the usual way. But in my opinion — and I felt it was the boldest part of the book — I think the psychology of the characters is futuristic. It's as though Ballard has anticipated a kind of common psychopathology that may no longer look like one because everyone will have it. It will be the normality. He did that in the book, and I did it even more rigorously in the film. Ballard and I were at a press conference overseas, and a Finnish journalist said, 'I really liked the movie, but I don't think the movie goes as far as the book.' But Ballard very graciously replied, 'I completely disagree, I think the movie goes much farther than the book, and I think the movie starts where the book left off.' That sort of ended that discussion.

I had to go through a distilling process when I was writing the script. I wanted to begin with that psychology, and I did my own version of the jump-cutting that Godard pioneered in *Breathless*, excising all of the things that didn't interest me. I didn't want to show viewers how these people got that way, or why they got that way. What interested me was, 'Where do they go from here?' The book has that inner monologue that you can never do on film, and it's the thing I'm most jealous about when I think of writing. Voice-over can sometimes work, but it's quite a different thing.

So the sci-fi aspects of the book is more of a tone that comes from the characters and their weird disconnections dialogue and relationships. Peter and I were looking for a visual correlative for that.

The film's atmosphere of alienation is heightened by the unreality of the staging. There are very few people around except for the main characters.

Cronenberg: I had a very enthusiastic A.D. who was always ready to fill up the streets with a hundred extras at any moment. I didn't want any of those people in the frame, because I wasn't interested in them. The result is a sort of isolated, abstracted feel that reflects the internal world of the characters.

The sexual positions of the characters in the story also reflect that alienation and distance. The characters are physically uninhibited, but at the same time emotionally repressed.

Cronenberg: Right, it's always as if they're looking off into the distance at a third person, or at their own future, rather than at each other. As you've pointed out, that's another way of being repressed — to be able to do anything physically, but nothing emotionally. The sex becomes an out-of-body experience; it's almost as if these people are trying to reinvent sex because the old forms aren't working.

Did the graphic nature of the sex scenes make them particularly difficult to film?

Cronenberg: Not really. They were tough only because everything is very fussy in a sex scene. I don't mean that the actors are fussy; it's just the angles and the aesthetics of it. I often found myself arranging Debra Unger's hair on the pillow just for the sake of continuity. The positions of bedcloths and hair are absolutely unrepeatable; there's no way you can get in and out of bed and have those two things stay the same. That was difficult and agonizing. A lot of that footage looks as if it was done in one or two takes with multiple cameras, but I never use multiple cameras unless I'm doing an action sequence that can't be repeated. Almost all of the sex scenes involved multiple takes. The carwash scene, for example, took three separate days. We were shooting with a car that had been cut in half, and the front seat was different than the back seat. Likewise, the shot of the two guys kissing was done over three days; part of it was done on a set, part was done outside, and part was done on another set. Naturally, shooting that scene involved a lot of intensity and humor. You can't drag actors kicking and screaming into roles like these; they have to be gung-ho and excited to do it.

The sex was almost not discussed, because it was all there in the script. I did use a very good color monitor so that I could tape everything and show it to the actors. It wasn't a normal procedure, but I wanted to extend them that courtesy so that they would feel comfortable. I wound up doing that for other scenes that didn't involve sex because I didn't want them to have any surprises during the dailies.

The camera lingers over car-crash wounds throughout the film, and almost eroticizes them.

Cronenberg: In *Dead Ringers*, the character of Elliot says, 'There should be a beauty contest for the inside of the body.' As human beings, our sense of what's beautiful or repulsive is only skin deep, even when it comes to our own bodies. I'm always interested in taking something which seems repulsive at the beginning of the film and making it appear beautiful and inevitable by the end. I can't achieve that with every viewer, but with some people I succeed. The book of *Crash* is not written like porn at all; it's very clinical and very medical in its descriptions of everything, including sex. But at some point you find yourself being turned on by it, and you say to yourself, 'Oh my God, I'm capable of being turned on by *this*? It's unbelievable.' I would love to have that happen with the movie.

There is quite a bit of sexual tension in the scenes involving Rosanna Arquette's character. The deep scars on her legs become an erotic focal point.

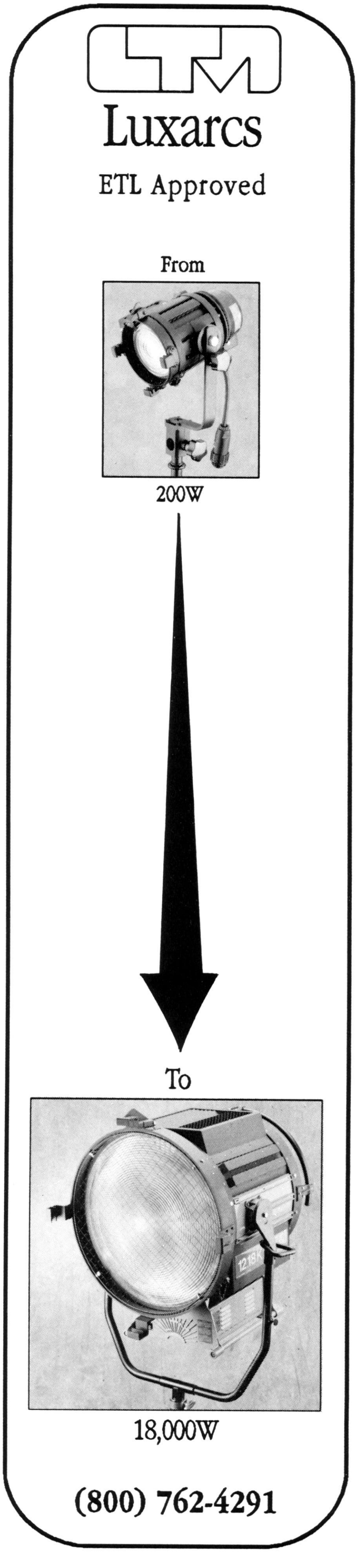
Cronenberg: At those points, you are hopefully entering into the psychology of the characters. I'd like people to be thinking, 'Even though I would have thought that these feelings were completely distant and impossible for me, I do have a kinship with these characters.' As soon as you've made one connection like that, you can start to make others.

Do you believe, as Ballard does, that our interaction with technology will result in some sort of physical evolution?

Cronenberg: I think the technology is only incidental. As I said earlier, I feel that it's just an extension of human will. We seized control of our own evolution many years ago, and we're probably the only creatures in the universe who have ever done that. It's no longer the survival of the fittest, because what constitutes the fittest? Is it the guy who makes a lot of money and can buy a Mercedes, get the most babes and reproduce his genes the most often? It no longer has to be the guy who's physically the strongest and most aggressive. I think, more likely, that a completely different dynamic of evolution has set in that we're not completely aware of. We are willing ourselves to change, just as we always have. We don't accept the world as a given; we build houses, we change the temperature to suit ourselves, and we don't accept that you can't have light once the sun goes down. We also don't accept when we're sick, crippled or depressed. Prozac is now part of our evolution; we've externalized our bodies' chemistry. That's the nature of the human beast, and the movie does touch on that.

Contrary to what some people have said about the movie, it seems as if there's an underlying thread of optimism in the story.

Cronenberg: Personally, I don't think that the movie is depressing at all. The characters don't just cave into the empty, lifeless situation that they find themselves in. They seek life, even if they're seeking it through death or danger. And I think that's very human. The melodrama and extreme situations in the movie hopefully will serve to highlight those feelings and show how they can apply to more mundane situations in real life. ◆



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The opium-addicted Pang Ruyi (Gong Li) learns to treat herself to all manner of pleasures once discovering her womanhood in a male-dominanted society. Though the color red holds great significance in Chinese culture, director Chen Kaige notes that on **Temptress Moon**, *scarlet shades were reserved for scenes which held substantial emotional impact for a particular character.*

Photos by Lawrence Ng, courtesy of Miramax Films.

Shanghai Charade

Temptress Moon, a bizarre love triangle set in 1920s China, is suffused with a silken aura by director Chen Kaige and cinematographer Christopher Doyle, HKSC.

by Andrew O. Thompson

Notes *Temptress Moon* director Chen Kaige, "There is a big similarity between Twenties and Nineties China. In the 1920s, a lot of people moved to Shanghai, either from the countryside or small towns, to try to make a better life. Nowadays, people move from the north to the southern coast of China for the same reason, just to survive. But the situation is different; people are more worried about how much money they can make, and what *kind* of life they can live."

Temptress addresses this topic by presenting a period tale about a trio of characters troubled by societal changes that occur when the Chinese era of Dynastic dominion gives way to the rule of a Republic.

"It's my belief that the nation's entire cultural base has been totally destroyed," Chen states from Beijing during a telephone interview. "We don't have any belief system, and as a human being, you have to believe in something. But people here don't, and it's very dangerous. To me, the Pang family [in *Temptress Moon*] is a symbol for China. Everybody here is trying to find a life for themselves, and they want to know what they can do in the future. That's why the characters in the film appear to be so emotional."

Chen is no stranger to the desperation of characters torn between the yearnings in their hearts and the constraints of their surroundings. His previous picture, *Farewell My Concubine* (1993) is a sweeping, torrid tale of the passion and pain between two Peking Opera stars. Featuring sumptuous photography by Gu Changwei, ASC [see *AC* June '95], *Concubine* shared the 1994 Cannes Film Festival's Palme d'Or with *The Piano* and earned Academy Award nominations in the Foreign Language Film and Cinematography categories, among many other international honors.

Due to the picture's critical stance on more than 50 years worth of Chinese political history, however, the National Film Bureau of China banned *Farewell My Concubine,* allowing only an unpublicized Peking premiere and a three-week Beijing exhibition of a censored print. Sadly, political pressure has accompanied the production of each of Chen's films.

Chinese authorities found his 1984 directorial debut, *The Yellow Earth* (with cinematography by Zhang Yimou), to be no mirthful matter. The film, which tells the tale of a 1930s peasant girl realizing her independence due to the teachings of a lone Communist soldier, was not prohibited, but critics maintained that its candor would lead outsiders to view the Chinese as ignorant. His sophomore feature, *The Big Parade* (1986), met a similar fate until he altered its ending, and his fourth film, *Life on A String* (1991), remains banned to this day. And, even though the bureau previously approved the *Temptress Moon* script, this $4 million Mandarin language film was nevertheless suppressed upon completion.

Temptress opens in 1911 on the last night of Chinese dynastic rule when Zhongliang (Ren Lei), a recently orphaned adolescent, arrives at the majestic Pang family estate in rural Suzhou to stay with his sister Yu Xiuyi (He Saifei) and her husband Pang Zhengda (Zhou Yemang). But the splendor of the Pang palace is somewhat misleading, since the manor is also an opium den.

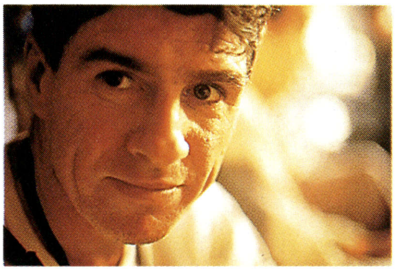
As Zhongliang grows older, his ambitions to be a man of letters are quelled when it becomes apparent that his role in the family is to be that of a servant. His most pressing duties are to pack pipes with opium and engage in incestuous interludes with his sister.

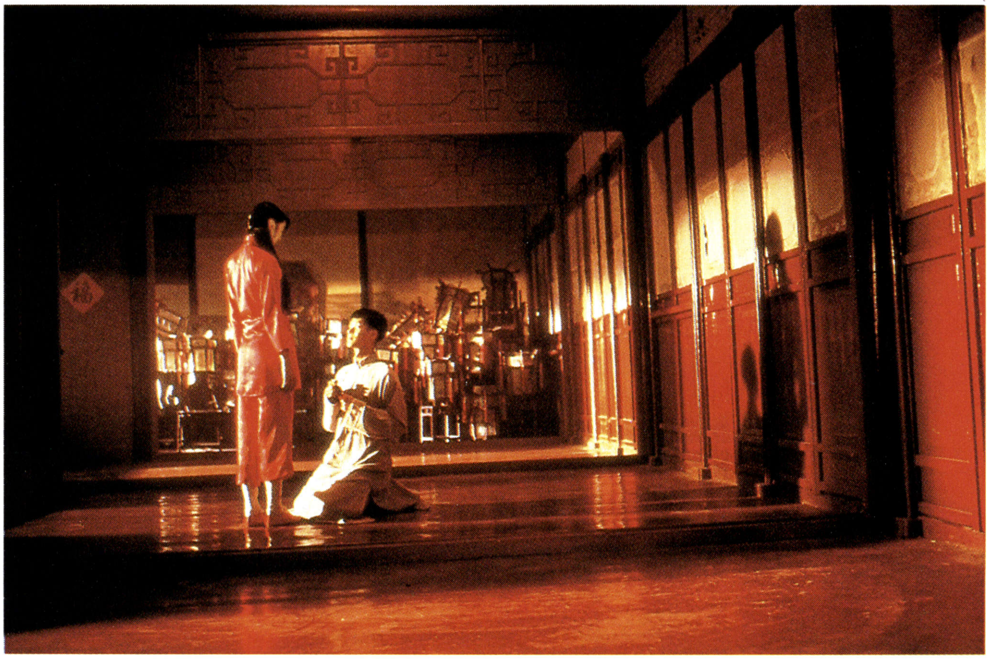
Zhongliang eventually flees the countryside and heads for Peking, but gets sidetracked to Shanghai by the gangster guru Boss (Xie Tian), who grooms him to be a gigolo. Before long, Zhongliang (played as an adult by *Farewell My Concubine*'s Leslie Cheung) becomes expert at seducing the wealthiest wives of Shanghai and then extorting from them.

Years later, when the elder Pang passes away, his unmarried opium-addict daughter, Pang Ruyi (Gong Li) finds herself thrust into the role of clan chieftain because the family's rightful heir — her older brother Zhengda — has been reduced to a vegetative state by opium poisoning. The elders' antiquated ideals about equality, however, lead them to furnish Ruyi with an adjunct — Pang Duanwu (Taiwanese actor Kevin Lin), her cousin and secret admirer.

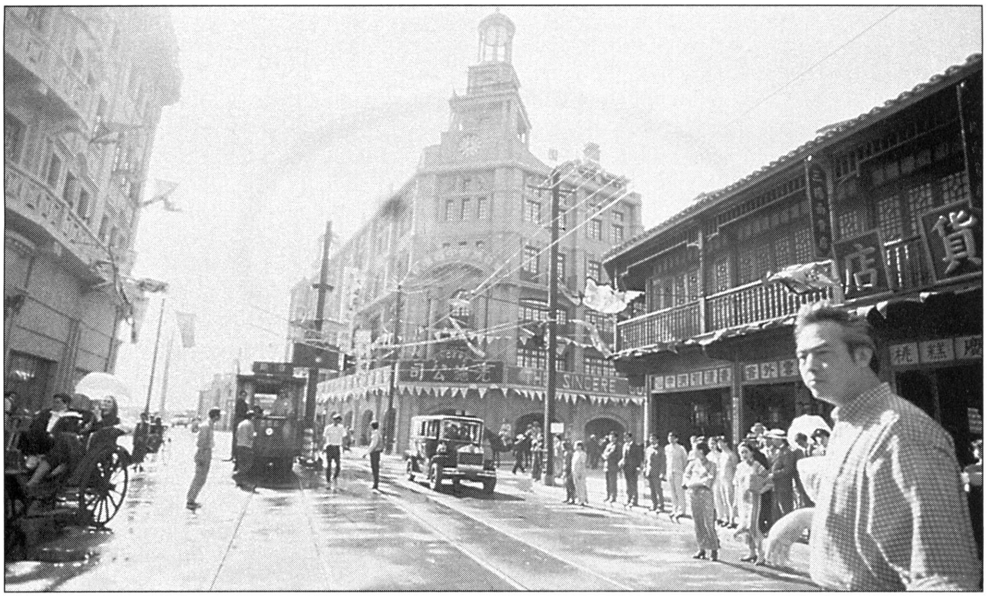
In the hopes of finagling the Pang clan's fortune, Boss orders Zhongliang back to the family's rural estate to seduce the unsuspecting Ruyi. The two have an immediate animal attraction, but his genuine feelings for Ruyi cause him to become racked with guilt. Much to Boss' displeasure, he returns to Shanghai empty-handed. With Duanwu not far behind, Ruyi follows Zhongliang to Shanghai, and this neon-infused immigrant city sets the stage for a tragic finalé.

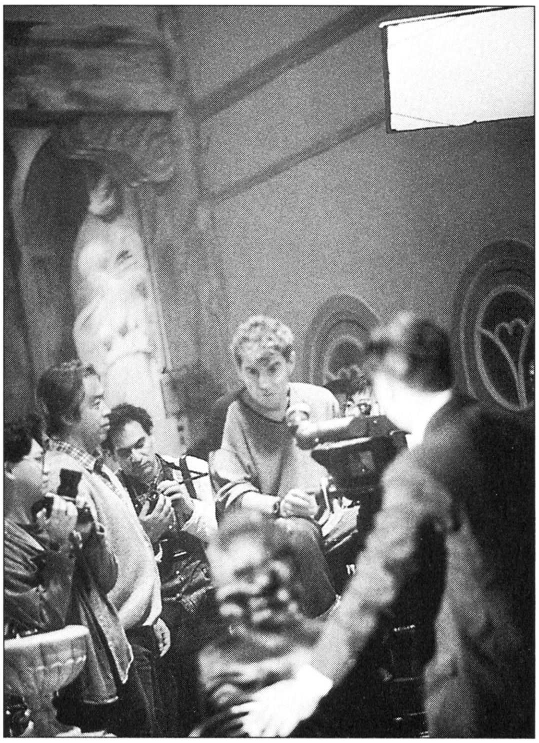
Temptress Moon producer Madame Hsu Feng felt that an ideal collaborator for Chen on this picture would be cinematographer Christopher Doyle, HKSC, whose frenetic nature seemed an ideal counterpoint to Chen's more composed mien. An Australian native who majored in Chinese Art History at the University of Maryland, Doyle engaged in a number of odd jobs after graduation, including stints as a well-digger in the Indian desert and as a member of the Norwegian merchant marines. At 26,





Center: ***Confused philanderer Zhongliang (Leslie Cheung) reluctantly professes his love to an apathetic Ruyi against a backdrop of giant globular lanterns. The soft amber haze is meant to evoke childhood nostalgia.***
Top right: ***Australian-born cameraman Christopher Doyle, HKSC.***
Lower right: ***One of several interiors shot on location in China that doubled for the inside of the Pang family manor, supposedly set to the south of Shanghai in Su Zhou.***





Above: ***Director Chen Kaige (at right) surveys the standing street set of period Shanghai constructed for*** **Temptress Moon** ***by Shanghai Film Studios. The entire set, however, was constructed as like actual living spaces, and no concessions were made for lighting fixtures or accessories.*** **Center:** ***Doyle and Chen prepare a setup during a scene that follows one of Zhongliang's jaunts as a gigolo.***

he emigrated to Hong Kong to further his proficiency in the Mandarin language, and later relocated to Taiwan, where he became ensconced in the dance, music and theater scene.

Doyle began his photographic career when an ethnomusicologist doing research on the Haka — the persecuted Chinese boat people — gave Doyle an 8mm camera so he could document this study. He then shot several award-winning experimental short films. The cameraman's Occidental heritage made him ineligible for any of these prizes, so he entered his work under the names of Chinese friends.

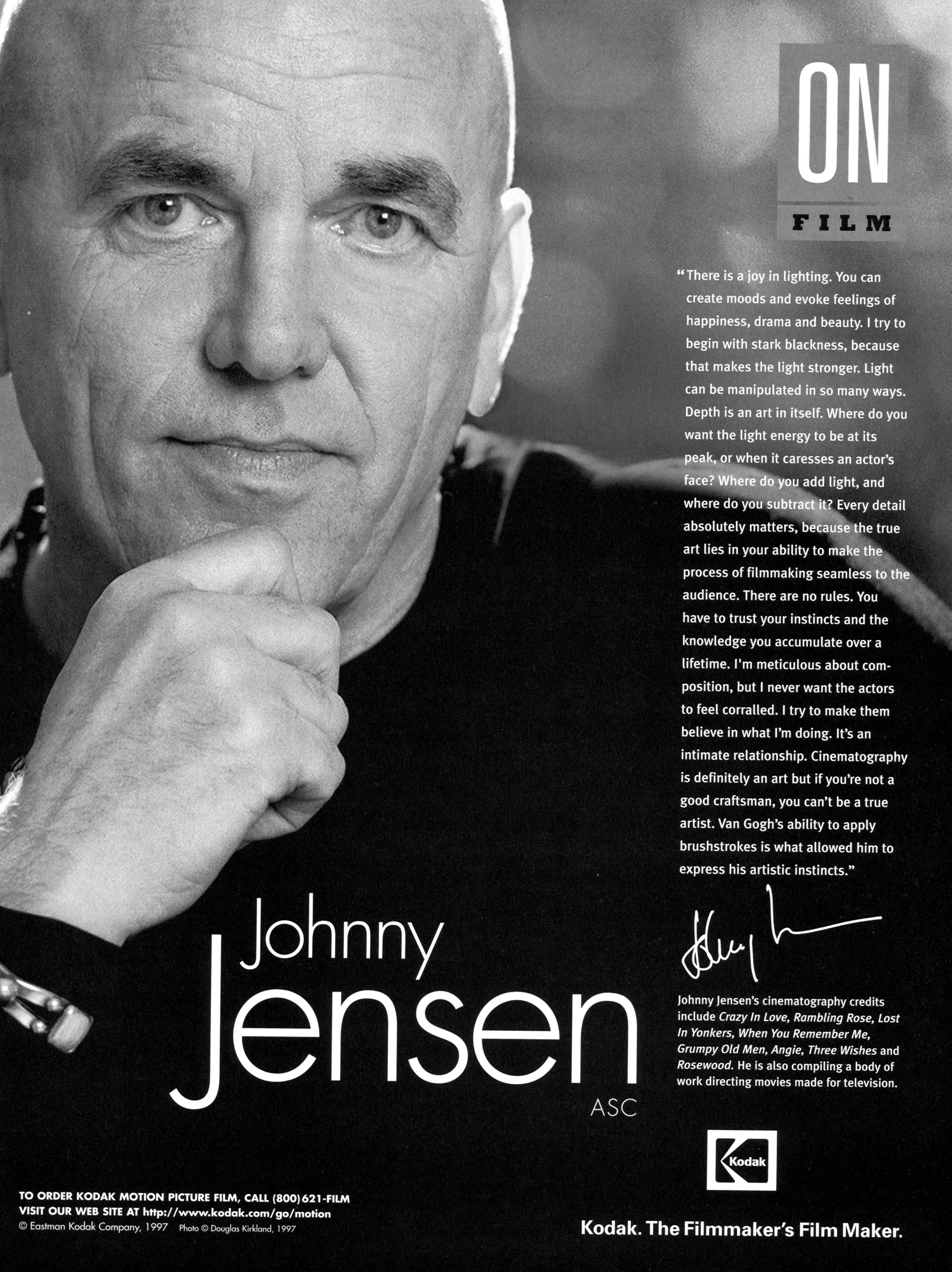
After a series of these anonymous honors, Doyle joined a team of three other cinematographer/directors on *Travelling Images*, an abstract travelogue shot on-the-fly for Chinese TV. His first feature as a cameraman was *That Day on the Beach* (1983), a seminal effort of "new wave" Taiwanese cinema directed by Edward Yang. For the next several years, Doyle lived in France, where he shot Clair Devers' directorial debut, *Noir et Blanc* (1986). He would regularly return to Hong Kong — before relocating there permanently in 1991 — to shoot an average of one film a year, including Shu Kei's *Soul*, which won Best Cinematography honors at the Hong Kong Film Awards.

Doyle's true notoriety on the cinematographic circuit came about when he joined forces with the hip Hong Kong director Wong Kar-Wai. The duo's signature dynamic style relies heavily upon on-set improvisation, and most notably, a deft manipulation of handheld camera work, variable frame speeds and step-printed imagery. Doyle has photographed numerous music videos for Wong, along with the features *Days of Being Wild; Ashes of Time* (a 1994 winner of China's Golden Horse Award for cinematography); *Chungking Express* [see *AC* Dec. '95], a collaboration with cameraman Lau Wai-keung; *Fallen Angels;* and the recently completed *Buenos Aires Affair*, which was shot almost solely on location in Argentina. Doyle's other credits include *Red Rose, White Rose; The Peach Blossom Land; The Red Lotus Society*; and *Four Faces of Eve*, a four-part feature directed by a trio of up-and-coming Hong Kong filmmakers.

After Doyle agreed in early 1994 to photograph *Temptress Moon*, Chen sent him a 300-page breakdown of the narrative. The document was rife with precise guidelines for the cinematographer to ponder before shooting commenced in mid-August.

Says Doyle by phone from his Hong Kong apartment, "There were scenes in which the camera had to follow an actress through seven rooms, up the stairs and down into a garden. The breakdown also included more dramatic panning and cuts than Chen had used before. He had notes that read 'zip pan, doesn't matter if the camera is unstable.' He wanted to speed things up a bit. But Chen knew that these shots could only be done handheld, because he wanted them to be a bit rougher than the Steadicam shots he had used previously."

Chen's theories about cinematic movement have changed a bit since the audacious use of Steadicam in *Farewell My Concubine*. In the case of *Temptress Moon*, the director found the jerky motions of handheld shots to be more in line with the film's heightened emotional content. Smooth Steadicam movements would be reserved for specific characters. Chen explains, "The reason that there's a lot of camera movement is that I'm trying to find a way to describe what the characters think, and what they want.



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"There is a joy in lighting. You can create moods and evoke feelings of happiness, drama and beauty. I try to begin with stark blackness, because that makes the light stronger. Light can be manipulated in so many ways. Depth is an art in itself. Where do you want the light energy to be at its peak, or when it caresses an actor's face? Where do you add light, and where do you subtract it? Every detail absolutely matters, because the true art lies in your ability to make the process of filmmaking seamless to the audience. There are no rules. You have to trust your instincts and the knowledge you accumulate over a lifetime. I'm meticulous about composition, but I never want the actors to feel corralled. I try to make them believe in what I'm doing. It's an intimate relationship. Cinematography is definitely an art but if you're not a good craftsman, you can't be a true artist. Van Gogh's ability to apply brushstrokes is what allowed him to express his artistic instincts."

Johnny Jensen's cinematography credits include *Crazy In Love, Rambling Rose, Lost In Yonkers, When You Remember Me, Grumpy Old Men, Angie, Three Wishes* and *Rosewood*. He is also compiling a body of work directing movies made for television.

Johnny
Jensen

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Ruyi runs the gauntlet of the Pang clan's elders as she is made head of the household. The rightful heir — her elder brother Zhengda — has fallen victim to drug poisoning.

Temptress Moon is a pretty emotional story, and this [use of movement] is the best way to convey the characters' world.

"The Steadicam is a guide that leads people to see what's going on inside of this dying family; it always tells [the audience] where we should go, and what we can find. The Steadicam is our eye: it's another human being. Since I cannot be in the film, I ask my camera to play a role as director. I always used Steadicam for Zhongliang because he's always trying to run away from reality; you see him being followed by the Steadicam as he's running away."

Elucidating his own objectives for the camerawork, Doyle notes, "We wanted the camera to be there without the viewers knowing why, turning them into participants and encouraging them to take a point of view on certain things. In order for the logistics of the tale to continue, however, we sometimes had to present a certain objectivity. That's why the camera follows someone for a while, and then, at a rather unexpected moment, takes a step backwards. We explain what's happening, but then the camera, as a participant in the scene would do, steps back. [The scene] goes out of focus, or [the perspective] turns away."

A similarly subjective approach was taken in terms of the film's palette. Color symbolism holds enormous weight in Chinese culture: *Farewell My Concubine* oscillated between shadings of red and blue, with the former hue signifying glory and lust, and the latter reflecting isolation. Despite the emotional tone of *Temptress Moon*, however, Chen chose to use such symbolism sparingly. Red is featured in a few instances during dramatic scenes that entail some sort of emotional commitment, or violation: Ruyi consummates her marriage amid a deep wash of scarlet; in another scene, before Ruyi is raped by Duanwu, she resonates with the red glow from a neon sign outside her window. The director admits, "I'm actually fed up with this kind of symbolism, in which the color red symbolizes death. I had a very serious conversation with Chris in which I told him that the film must be mine. Naturally, we discussed the lighting, framing and colors, but we hoped that everything could be seen as being natural."

Recalls Doyle, "We used warmer tones and a slightly softer, more diffused look for the rural sequences set in Su Zhou. For the colder, harsher world of Shanghai, our thematic choice was a grayer, more monochrome tonality. These sequences reflect the grayer tones of the city itself — the stonework and the pebbled streets. Of course, [the lighting] is less diffused, with a slightly harsher style that also mirrors the world that has seduced Zhongliang.

"By the time we started shooting, however, the countryside had become very green, which worried us a bit; we felt that green and red were too saturated, too traditional and too distracting for a Chinese movie. Green, black and blue have strong traditional symbolic meanings which can easily be confused in a modern context. In classic Chinese poetry, one word can can mean all three of those colors. Kaige's perception of those colors is very much associated with specific poetic ideas. So in choosing the locations, we paid a great deal of attention to what crops were in those areas, because we wanted to keep our colors in the warmer tonal ranges."

In pursuing his naturalistic aesthetic, Chen typically prefers to shoot on location. But most of *Temptress Moon* occurs in Shanghai of the 1920s, an era that would have been next to impossible to recreate in the actual city itself, given the immense urban incursion that has occurred over the past six decades. Ironically, Chen's own vision of Twenties' Shanghai isn't wholly informed by reality. He did interview older residents of the city who could recall pertinent cultural characteristics of those days, and he and Doyle studied films from the "golden age" of Chinese cinema, including the work of Chen's own father, Chen Huaikai (*Song of Youth*). The director admits, however, that "to me, Shanghai is a dream. We wanted to create a world that never existed, but was still Shanghai. For example, during the late Twenties, I don't think there would have been a ballroom as big as the one you see in the film."

All of the Shanghai sequences were shot on a free-standing street set situated on a tract of suburban land owned by the Shanghai Film Studio. Though the set itself is already being earmarked for future films, Shanghai Studios agreed not to utilize it until after *Temptress Moon*'s theatrical release. Much to Doyle's consternation, however, the set's structures were constructed as if they were actual spaces to be inhabited. He elaborates, "They didn't make

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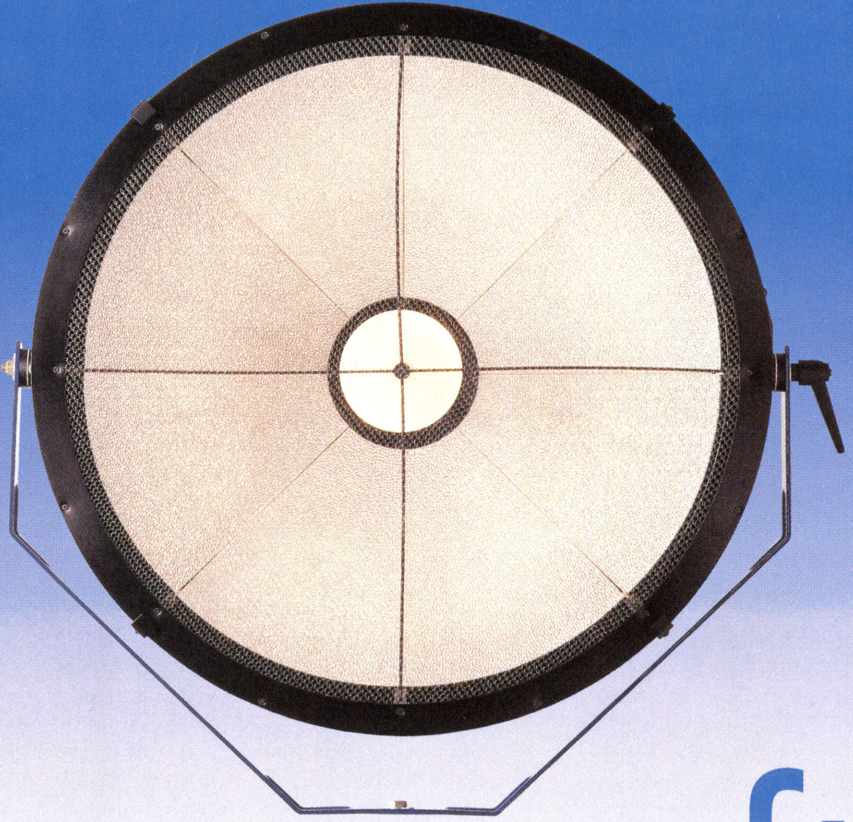

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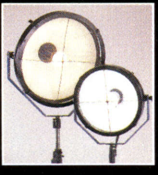

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concessions to the real requirements of filmmaking. There was nowhere to put cables, and no place on the roof that could support heavy lamps. There were no outlets anywhere within the structures to run our cables, or even to plug into some sort of main source. Basically, we had to treat it like a real location. If we wanted to get a cable into the room, we would have to make a hole in the wall, just like we would in the real world."

Due to technical and financial limitations, the filmmakers couldn't make their set picture perfect. But the swift swirl of Doyle's camerawork effectively conveys the amazement that those from the countryside experienced when they first set foot in Shanghai. This shooting style, coupled with the lack of depth of field in the open aperture setting, also disguised the set's imperfections — such as a stationary tram that had to be pushed from behind, and automobiles that weren't precisely of the film's period.

Temptress Moon began shooting in August of 1994, and then halted production in December when Chen decided that he could no longer continue filming with the Taiwanese actress then playing the Ruyi role. The production remained on hiatus while Chen scoured all of China for an appropriate replacement. Filming recommenced in April 1995 with actress Gong Li as Ruyi, and all scenes featuring the character had to be redone.

In the Chinese system of cinema, the shooting script, and schedule, is broken down in terms of scenes per character. When the production reconvened, there were some 46 Ruyi sequences which required reshooting. For reverse shots with the Zhongliang character, Doyle had to first recall how the original scene had been lit, and then determine a means to relight or adapt the particular shot so that footage featuring Gong Li could be inserted without the difference being discernible to an audience.

Throughout filming, Doyle wielded an Arriflex BL-4; handheld shots were captured with an Arri 535, often outfitted with a 1,000' magazine. The cinematographer's extensive experience shooting with wide lenses on Wong Kar-Wai's films proved valuable on *Temptress Moon*. To create intimacy among the characters, and encapsulate some of the location's vast spaces, Doyle made extensive use of an 18mm lens, occasionally switching to a 14 or 10mm. Says Doyle, "If you have a wide angle and elements in the foreground, there are a couple of tricks you can play to prevent distortion. For example, if a table was very obviously distorted, I would tilt it a bit toward the camera so that it would seem less so."

Though close-ups were shot on a 35mm lens, longer focal lengths were generally restricted for shots with intense dramatic impact.

Seeking to achieve variations in tonality through focus and processing, the cinematographer opted to shoot the entire film on one stock — Kodak's 5293.

Since the few existing garden estates like that of the Pang family complex (supposedly set in Su Zhou, located to the south of Shanghai) have been transformed into museums and/or tourist attractions, scenes at the family manor had to be filmed in various locations all over China: in and around Su Zhou itself, in the city of Hang Zhou and in the An Hui province. Ruyi's character makes her first entrance as an adult in an immense courtyard awash in a golden glow. Doyle set a couple of 12Ks aloft on cherrypickers to cast crosslighting that defined the enormous space, and separated the players from the dark spaces which they pass through intermittently.

The courtyard's overall ambient light level was raised to a tolerable standard via multiple Chinese lanterns fitted with more than 20 2K fixtures. Doyle diffused Gong Li's delicate features with a ½ warm Tiffen Pro Mist filter; in the Shanghai scenes, he employed a black Pro Mist filter, in accordance with that city's colder ambience. He also used Dedo lights to cast candlelight-type accents upon the actors' eyes.

Notes Doyle of the courtyard sequence, "Rather than opting for a slower stock, I wanted to sustain a consistent open-aperture tone — even in bright sunlight. I chose to use two ND9 filters, which made it very difficult to see what was happening in the scene. I prefer to stay on a pretty low setting — most of this film was shot between T2.5 and 2.8 — because I like to control tonality by keeping the same aperture as much as possible throughout. In the courtyard area, the [natural] light was changing all the time [through the trees overhead]. So when Ruyi is first elected as head of the household, we tried to shoot the entrance shot as early or as late as possible in the day. Then I just threw on ND filters to cut the aperture back to a level appropriate to the rest of the scene."

In keeping with the subjective-camera motif, Doyle did shoot scenes with elements purposely moving in and out of focus. He says that the blurred imagery indicates inner emotional turmoil just as "the step-printing in the Wong Kar-Wai films is a translation of an adrenaline rush." However, the cameraman's shallow-focus tactic became rather taxing on moving shots, such as one in which Duanwu is about to rape Ruyi. Says Doyle, "Here, we're trying to visually express Ruyi's incredible anguish, and the aggression that Duanwu would have at that moment. During the moments that it's in focus, she knows he's going to rape her, and he knows he almost has her. We wanted to capture that type of moment when everything is perfectly clear, and you're totally focused on one part of someone else's, or your own, body, or one event or one action.

"It was difficult for my focus puller, because he wasn't used to the camera moving so much. We were on a very wide-angle lens, so to purposely throw the image out of focus was extremely difficult. I couldn't do it myself; I was handholding and moving too fast to even attempt to pull focus and operate at the same time. The type of movement we were doing — where both the camera and actor are moving — is pretty much hit-and-miss. If I'm handholding, it's almost impossible for me to hit a mark. I can only guess by keeping my eye open, and by judging the topography of where I am."

Doyle's cinematographic philosophy does not rely upon

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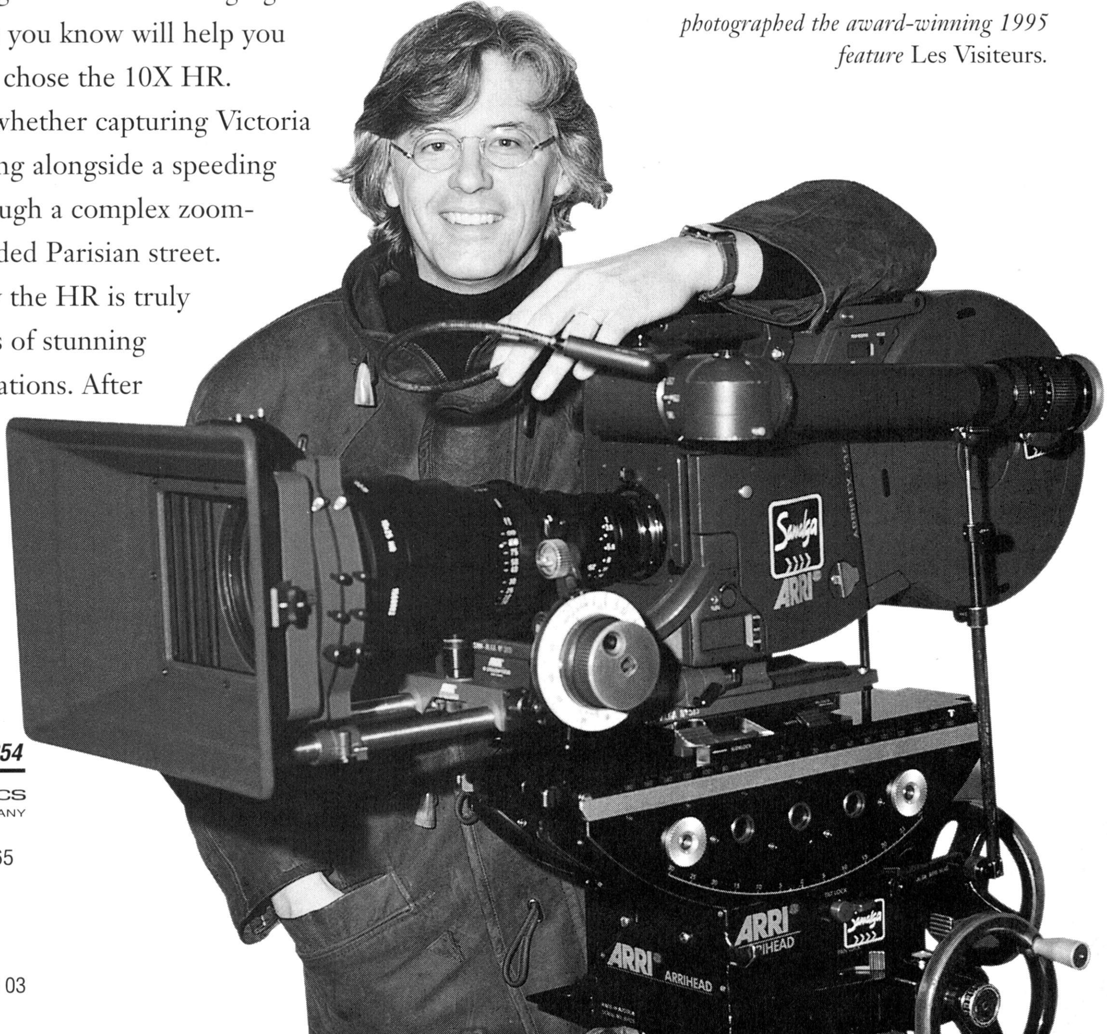
Jean Yves Le Mener served as Director of Photography for a decade of films directed by Claude Lelouch, including Les Miserables *and* Itineraire D’un Enfant Gâté. *He also photographed the award-winning 1995 feature* Les Visiteurs.



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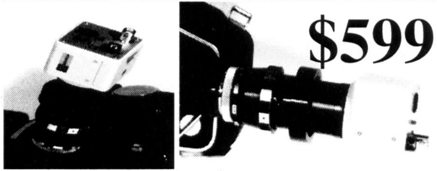

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sources with a definable motivation, and he frequently used fixtures to "enhance the grandeur of certain spaces, or reduce them to more human proportions." In the film's final scene, Zhongliang and Ruyi are once again seen as children, surrounded by giant globular lanterns situated slightly above floor level and radiating a soft amber haze. Says Doyle, "We wanted something dreamy and warm that implied the nostalgia for youth, and referenced another space [an empty bookroom where the two first ride bicycles] in which the lamps were an important symbol of the doomed couple's love. The lights were diffused through treated paper that has a warm yellowish glow. Originally, we hung them lower — some were just a foot or two off the ground, some were a little bit higher. It could be explained that maybe someone pulled a few down to replace the oil in the lamps."

He brought that same chamber down to size for a scene in which Ruyi bids a bittersweet adieu to Zhongliang after the gigolo reluctantly declares his love for her. The nostalgic aura of this parting alludes to an earlier scene in *Temptress Moon* when Ruyi and Zhongliang meet for the first time; they engage in a playful bicycle ride inside a similar space, and pass through big, bright orbs of light that originate from an unknown overhead source.

Notes Doyle, "The space was so big that there weren't too many choices. The location was a historical monument, so we couldn't touch anything. The only place we could get light in was from the courtyard to the northern side of the building. The only other choice was to make these strong pools of light [from multiple 2.5K HMIs], which we kind of implied were from lanterns, or a skylight. That was the only justification one could make logically — the other rationale, of course, being that it looked and felt right for the scene.

"I like to be spontaneous. Sometimes, the only way to do that is to create some kind of visual stimulus that does have an unconscious or inexplicable meaning."

Doyle says that the film's most challenging scene was Ruyi and Zhongliang's final farewell, shot on location in An Hui. After lacing Ruyi's opium with poison, the vindictive yet confused Zhongliang runs back to her room in the Pang estate to try to save her. Filmed at a rate of 16 frames per second, he sprints along the edge of pond inside a massive courtyard, only to realize that the damage has been done. Says Doyle, "A ceremonial gate and all sorts of facades were built at that space, but we had a lot of trouble with that location. Behind it are a vast series of houses. I couldn't even get a cherrypicker closer than 30 meters. We had to prelight for two days, and build a couple of 60-foot-high scaffolds. I was at an aperture of T2.2, but I was on the verge of not having enough light because the space was so huge, and because we knew we were going to be moving all the time. The space had to be clear for 360 degrees. There couldn't be anything on the ground except a couple of 2Ks hidden behind the gate, or in alleyways. So basically all of the light was coming in high from outside. I think we had about 12 12Ks, and just as many 6K and 4K Pars — we had about 36 major HMI fixtures hitting different areas of that space."

Chen is currently planning to shoot *Assassins,* a big-budget period piece set 2,000 years in the past, recounting the slaying of the very first Emperor of China.

Doyle is currently shooting *Summer in Beijing* with director Wong Kar-Wai, and has no plans to photograph non-Chinese films any time soon, comfortable with his identity as a self-professed "Chinese cinematographer." Doyle offers, "When we started *Temptress Moon,* I had to prove myself to a few people, but you have to do that anywhere. Initially, I was viewed as being white and from the outside, but after a week we were all friends, and I had learned how to live with it. I don't think [my being hired] has anything to do with way I look anymore. A lot of major Chinese filmmakers have considered me, or actually asked me to work with them, so they don't regard me as an outsider." ◆

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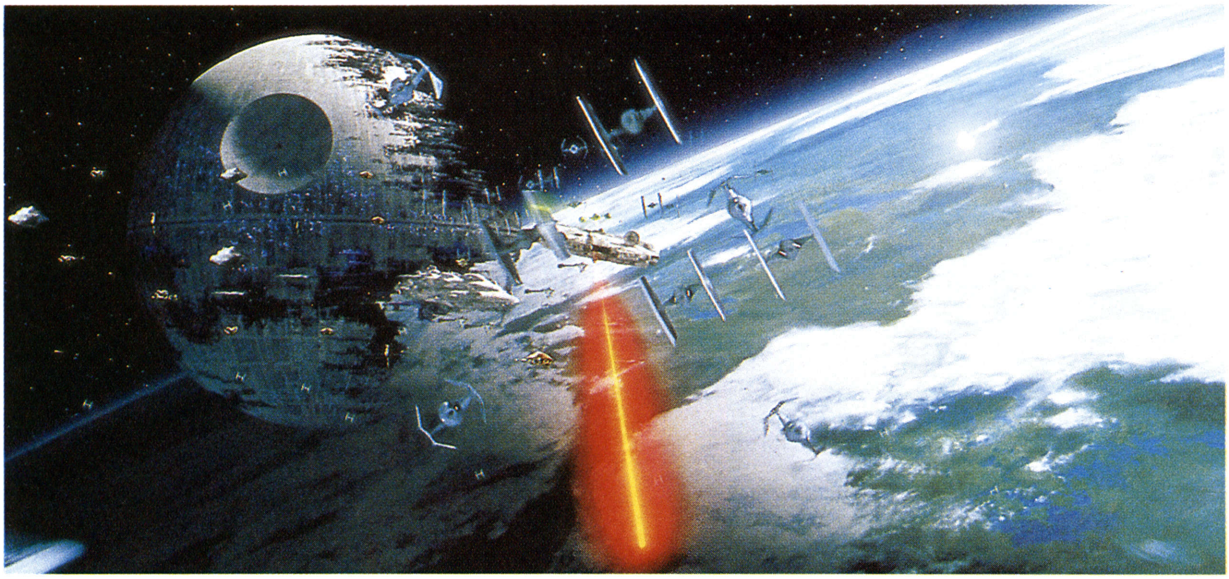


Images courtesy of Lucasfilm Ltd. and 20th Century Fox.

Renewing the *Star Wars* Sequels

ILM touches up George Lucas' classic adventures while adding a peek at the next Trilogy.

by Ron Magid

"One of the reasons I'm going on to do the new *Star Wars* films is that the technology has gotten to the point where there is again a lot of thrill involved," explains George Lucas. "I've loved movies and making films and telling stories all my life, but I've struggled with special effects and all of the photographic problems. To suddenly have those things solved, and be able to change things with a computer, is like being set free after having been tied down for 20 years."

As detailed in *AC*'s February issue, Lucas' creative emancipation inspired him to first restore and revise his 1977 classic, subtitled *A New Hope*, and then concentrate on that film's two sequels, *The Empire Strikes Back* (1980) and *Return of the Jedi* (1983).

In retooling *Empire*, the "fifth" episode of the saga (accounting for six yet-to-be-made segments), Lucas exercised the right of executive privilege and chose not to consult director Irvin Kershner on the changes he had planned for the film. "He hasn't had any input," Lucas admits from his command center at the Lucasfilm Ranch. "But I told him what's happening, and I am going to show him the film when we get down to the point where we have footage to show. Of the three films, *Empire* is the one that has the fewest changes. Some [of the alterations] were things Kersh had suggested [back when the film was made], when I had been forced to say, 'Kersh, we're out of money, we're out of time, we've got to come home, I'm sorry.' I'm sure when I show [the new version] to him he'll come up with another hundred things he thinks we could have redone, but I'll have to say again, 'Kersh, we just didn't have the time or money to do all that.' But I think he'll agree when he sees it that the changes have improved the picture quite a bit."

Many of the effects artists who worked on the series have stated that even the best images of the *Star Wars* Trilogy "look like *King Kong*," inferring that they are stylistically bold yet technically crude by modern standards. Foremost among these constructive critics is Industrial Light & Magic veteran Dennis Muren, ASC, who oversaw the revamping of many shots for the Special Edition of *Star Wars* and made most of the initial decisions on what scenes should be redone on *Empire*.

One of Muren's biggest problems was with the battle on the ice planet Hoth (shot on location in Norway by director of photography Peter Suschitzky) between the Rebel Alliance Snowspeeders and the gargantuan Imperial Walkers (a.k.a. All-Terrain Armored Transports). While this skirmish represented the apex of photochemical compositing for its day, the original scene was plagued by the limitations of optical compositing and white-on-white matting: black matte lines appeared around some objects, while other elements seemed semi-transparent.

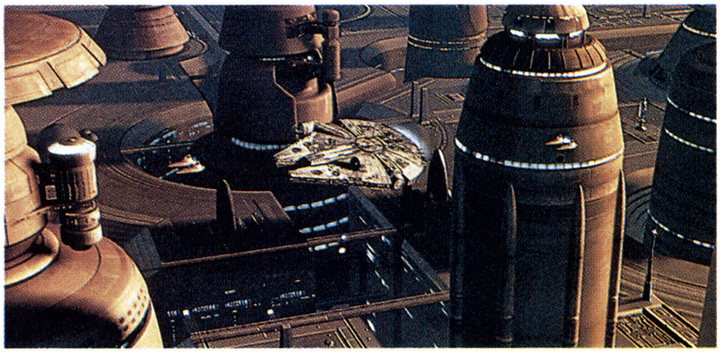
When Muren decided that more than 80 percent of the arctic assault should be redone, Lucas went ballistic. "I said, That's ridiculous! I thought that [that scene] was great,'" Lucas states emphatically, very much in the moment. "I said, 'There *were* some bad mattes, but we don't have to redo the *whole* thing, do we?' and Dennis said, 'You should look at it.' After I looked at it, I said, 'Well, I don't want to spend all this money redoing mattes, but you're right, it looks pretty bad and I think we should really fix it up.'

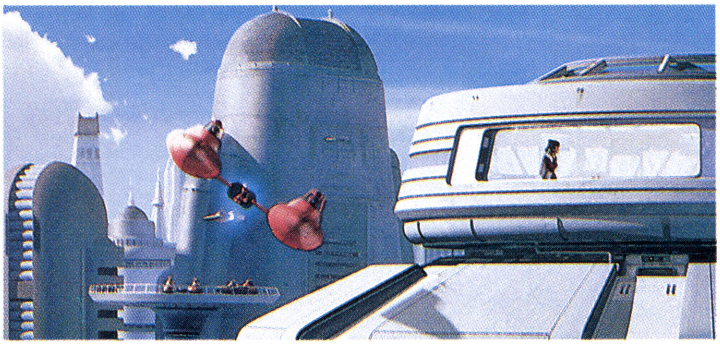
"When *Empire* was made, no one had ever done white-on-white matting before, and we were very successful at it, but we've come a long way in the last 10 years. And with digital matting, we can make it even better. So now we've redone almost every shot in that whole snow battle, and I don't think people will notice any difference. I call that particular sequence our 'psychological restoration.' People will look at that and say, 'They didn't do anything to it,' but then I'll say, 'Want to see something? I'll show you the original master and you will be embarrassed to death at how bad it is!' We spent a lot of money just to redo all the mattes, but I think Kersh will be pleased when he sees it."

Heading up ILM's *Empire* and *Jedi* touch-up team was visual effects supervisor Dave Carson, who, given his role as a modelmaker on the original production, relished the opportunity to dramatically clean up the frenetic, frigid fracas. "To some extent, our task on *Empire* was to make the film look as good as people remembered it," Carson states. "The primary problems were matte lines, which stood out against the snow and bright blue skies; elements that changed color from shot to shot; and transparency through the snowspeeders' cockpits, which was done to reduce the matte lines in the first place. The trick for me — in terms of improving some of the weaknesses that resulted mostly because of the technological limitations of the time — was to make sure we improved the shots without changing them. It's a fine line. We were trying to make the shots the way the effects team would have made them if they'd had the technology or the time available in 1979. It's neat — the shots are crisper, the color continuity is better, and the transparencies and matte lines are gone. Hopefully, the result is at least up to today's standards, and the sequence will be just as dynamic."

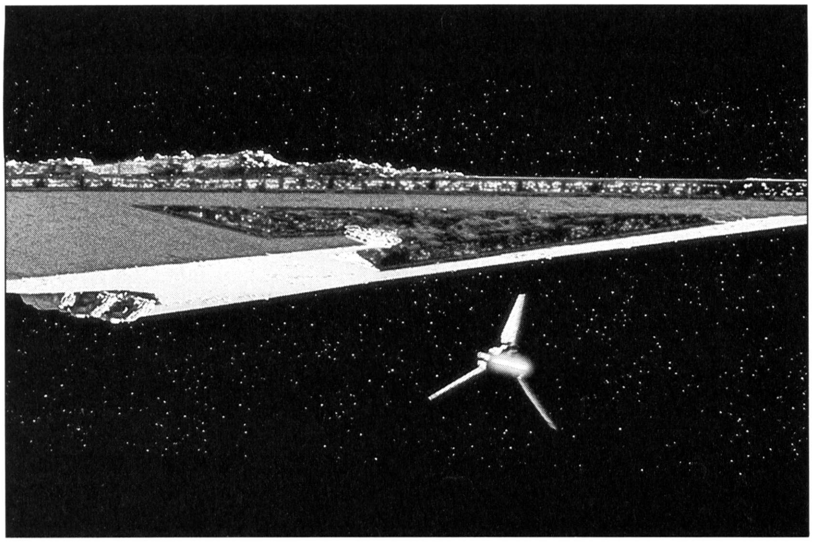
The most ambitious task faced by Carson and crew on *Empire* arises in the film's third act, with the re-imagining of the celestial floating Cloud City of Bespin. Here, Han Solo (Harrison Ford), Princess Leia (Carrie Fisher) and company arrive via the *Millennium Falcon* to seek refuge from Imperial forces, with the aid of conniving compatriot Lando Calrissian (Billy Dee Williams), the facility's administrator. The original film established Cloud City via Ralph McQuarrie's breathtaking matte paintings. This time around, ILM applied computer technology to expand the floating metropolis into the heavenly dreamscape Lucas had always envisioned. "We've tried to make it look like the Cloud City you didn't see but knew was right out there," Carson says. "Of course, we've tried to be as faithful as possible to Ralph McQuarrie's paintings and drawings."

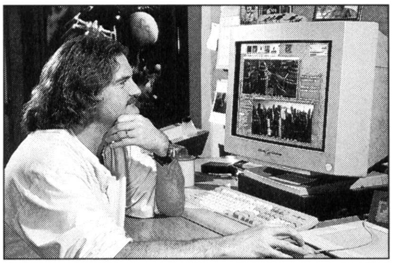
This complex challenge fell to art director George Hull, who cites Ridley Scott's *Blade Runner* as his favorite film and referred to that vision of 21st century Los Angeles as an inspiration while redesigning Cloud City. "I kept about 75 percent of what had been established in *Empire*," Hull says. "But transforming the look of a matte painted cityscape into realistic 3-D buildings proved quite challenging. Ralph McQuarrie's designs consisted of clean and simple buildings that worked beautifully in the stylized paintings. But in 3-D computer graphics, that aesthetic needed to be embellished if photorealism was the goal. So I designed the buildings with a similar language of forms, but with a new sense of architectural detail. I used cues of elevators, antennas, paneling, bridges, steam — et cetera — to help suspend disbelief. To be consistent, I used cues like domed tops to cap off my cylindrical buildings. The buildings in the original matte paintings were quite clean and solid, so I wanted to add a new sense of detail. Bespin was always presented in horizon-level matte paintings. You never saw more than the tops of buildings. To make these new shots more interesting, I

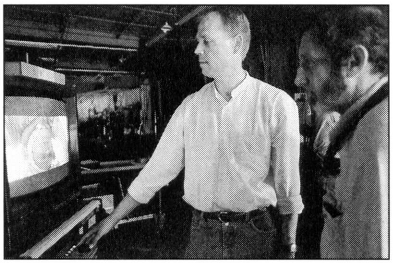




Opposite: ***Rebel forces engage the new Death Star in*** **Return of the Jedi. This page, top:** ***A CG*** **Falcon** ***makes its way through the newly created Cloud City in*** **The Empire Strikes Back.** ***Says CG supervisor Tom Hutchinson, "Animating the*** **Falcon** ***is quite easy; it's just like moving a disc around. It doesn't have moving parts and doesn't react much with its environment, except for the glow pass in the back."*** **Bottom:** ***A Cloud Car buzzes by Leia's apartment. Ensuring that the CG and miniature Cloud Cars matched perfectly from cut to cut required intensive work. Says visual effects supervisor David Carson, "We often used textures from the original miniatures on the CG models, and added film grain so that the nature of the grain would be the same. Cloud Cars are fairly easy [to match] because they're shiny; the models themselves are brightly colored, which computers love."***







Right: ***Darth Vader's Imperial Shuttle takes him back to his Super Star Destroyer in*** **Empire.** ***The CG-created craft was based on the scale model first seen in*** **Jedi. Bottom left:** ***CG supervisor Tom Hutchinson plots the*** **Falcon*'s arrival in Cloud City.*** **Bottom right:** ***Visual effects supervisor David Carson (left) and first AD Ed Hirsch check out a shot of Luke Skywalker (Mark Hamill) from another of*** **Empire*'s reworked scenes.***

Photos by Sean Casey, courtesy of Industrial Light & Magic.

designed a ground level of plazas, building bases, bridges, monuments and traffic. I also designed a third sublevel of canyons that run through the city between and around the buildings. This extra level helped open up the scope and scale of Cloud City. It was an honor and a pleasure to help add more exciting images to a movie that is a classic of dynamic visuals and my favorite of the Trilogy."

One of the more essential expansions occurs when the *Millennium Falcon* first arrives at Cloud City. The original sequence is set at nightfall, with a limited shot of Bespin as seen from the *Falcon*'s cockpit. What followed was a shot of the spacecraft touching down on a landing pad. ILM has now inserted several new shots between the original two: first, the *Falcon* soars through a corridor of buildings towards the horizon; then, as the freighter disappears behind a building, there is a cut to a new shot of the *Falcon* heading around the building towards camera and settling over the landing pad. During that 10-second scene, almost a quarter of Cloud City comes into view. Explains *Empire* and *Jedi* CG supervisor Tom Hutchinson, "First of all, we set up a 3-D re-creation of the city in three-space. Jonathan Rothbart set up some relatively low-res animatics for us, which we used as a template to plan our camera moves. After refining the move, we flew our 'virtual camera' through the City, then built in the detail and flew the vehicles along that trajectory. At times we did it back and forth."

Hutchinson and company also struggled to define what clouds look like as they head off into infinity from above and below in a very nonterrestrial perspective. "The clouds were strictly 2-D matte paintings on a disc in the background," Hutchinson reveals, "but we had to figure out what the horizon line looks like when you're on the edge of a disk in the sky. Fortunately, those shots are set at magic hour, and we get more caught up in the aesthetics and how pretty that time of night can be, so the lighting is more forgiving."

ILM's artists could not be so lenient for a newly created sequence that tracks a Twin-Pod Cloud Car — a red-hued scout ship — blazing a trail between the hovering city's towering spires at high noon. "Actually creating a full synthetic city on this scale is challenging," Hutchinson admits, "but the most difficult aspect is re-creating outdoor lighting. There is no existing computer graphics technology that can simulate the bounce light that you get out in the real world from the sun and buildings. People love to use ray-tracing to tackle that reflective light from the sky, but our environment was too big for the existing software. We had to simulate that look by hand-painting sunlight sources and shadows, and building it all up layer by layer. But we could only put so much detail into the buildings; otherwise, the city model would have gotten too big. So there's a compromise: we put less detail on the buildings that were furthest away. We see glimpses of the whole ground plane, with parks and cities, through the buildings. This was done using matte paintings painted onto an object connected to the 3-D model."

One of the more demanding examples of matching the revamped scenes with those of the original *Empire* arises after the camera has trailed the CG Cloud Car flying through the spires of Bespin; this cuts to an original establishing shot of Princess Leia, spied through the window of a matte-painted building as a Cloud Car model sails by. After Lucas effected his changes, however, the Cloud Car and the live-action plate of Leia in the window were the only elements remaining from the original effects shot. "There were two things that we thought could be improved on the original shot," Hull explains. "First, Leia's building is composed on the far right of the frame, which placed the emphasis elsewhere. Second, there is a skylight above Leia in the following shot, but it's not apparent in the original building design. So I composed her building into frame and redesigned it with a skylight on the top. For consistency, we didn't want to change many things. We kept most of the original matte painting while adding the building along with the Cloud Car in computer graphics."

Other challenges came to

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Above: *On the Jabba throne-room set, visual effects art director George Hull (foreground, right) and modelmaker Brian Gernand minister to Rapper, the new performer in Max Rebo's Band. "Rapper is puppeteered by five people," model/creature shop manager Mark Anderson reveals. "Two people were under the floor to work his head, arm and hand movements using rods. Everybody else was off-camera, working radio-controlled animatronics for his brows, eyes and mouth. A final puppeteer operated the huge bladders that blew up on the ends of the harmonica."* **Bottom:** *George Lucas oversees the details while shooting the new footage.*

Photos by Sean Casey, courtesy of Industrial Light & Magic.

light in a new establishing shot of Darth Vader heading for his Imperial Shuttle after Lando Calrissian orders the evacuation of Cloud City. Once again, the CG shuttle in *Empire* had to precisely match the original miniature, which was previously seen only in the subsequent film, *Return of the Jedi.* The heretofore unseen evacuation not only gave ILM's effects artists an excuse to add several additional ships fleeing the city, but also offered them an opportunity to create an entirely new view of Bespin. Now, a loudspeaker blares Calrissian's command over footage combining real people reacting in the foreground (shot against bluescreen), and CG crowds running through massive CG architecture in the background.

The original interiors of Cloud City itself consisted primarily of setpieces — enclosed corridors and rooms — to help compensate for scheduling and financial limitations on *Empire*. For the redo, Lucas decided to open those tight corridors up — literally. "George asked us to put windows in the enclosed hallways in a number of Cloud City shots," Carson explains. "There were also a number of shots of people running down hallways where there were a couple of windows with something hanging on the other side of the set to represent a skyline. In both cases, we've done some matte paintings to open those sets up and allow a better view of Cloud City.

"George felt that those tight environments needed a really airy feel, so we did about eight to 10 shots where he asked us to cut windows in the walls and put the city out back. He wanted more detail in the shots, so we've done matte paintings and added aerial cars to create sky traffic — anything to add more detail and more space."

Since these shots were originally photographed with a moving camera, ILM had to construct their matte-painted views of Cloud City in layers (such as multiplane animation setups) in order for the backgrounds to parallax in a believable fashion. "We've built some pretty complicated environments," Hutchinson adds. "Most of those CG mattes were 2 ½-D: we painted matte paintings on layered 'cards' in the computer to get the perspective switch as we moved the camera around."

Though some diehard fans may consider Lucas' revisionist work on the three films to be obsessive tinkering, his revamping of effects for the Special Edition of *Return of the Jedi* has created a more fitting conclusion to this segment of the saga.

In the case of *Jedi*, Lucas' impetus enabled Carson and Hutchinson to enhance and expand one of *Jedi*'s most memorable sequences: the visit to the desert den of gargantuan galactic gangster Jabba the Hutt. Lucas had always visualized an extensive song-and-dance routine for the bloated crimelord's pleasure palace, and was now able accomplish this through a combination of computer graphics, mechanical effects and some serendipitous casting.

Dubbed "Jedi Rocks," this sequence demanded that a small portion of Jabba's throne room, along with numerous props, be rebuilt on ILM's main stage. "We got out the original blueprints and looked them over," says ILM's model/creature shop manager, Mark Anderson, "then rebuilt about one-fourth of the set. We also built a lot of props, including a huge six-foot-diameter drum and all the different instruments."

The new footage was shot by cinematographer Patrick Turner on Eastman Kodak 5247 stock, the same negative employed during the original production of *Jedi*, which was directed by the late Richard Marquand and photographed by Alan Hume, BSC. While film stocks are relatively easy to match, Lucas was more concerned with finding an actress to re-create the role of Oola, one of Jabba's exotic slave girls and a backup singer for the Max Rebo Band's alien quartet. In the original film, Jabba drags Oola by her chain until she plummets through a trap

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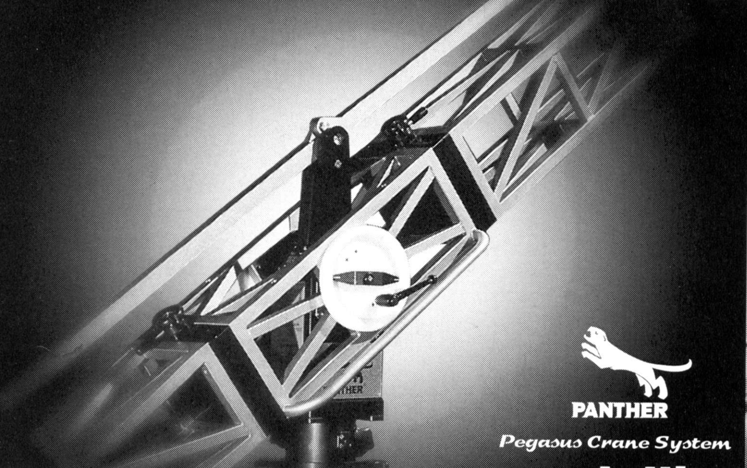

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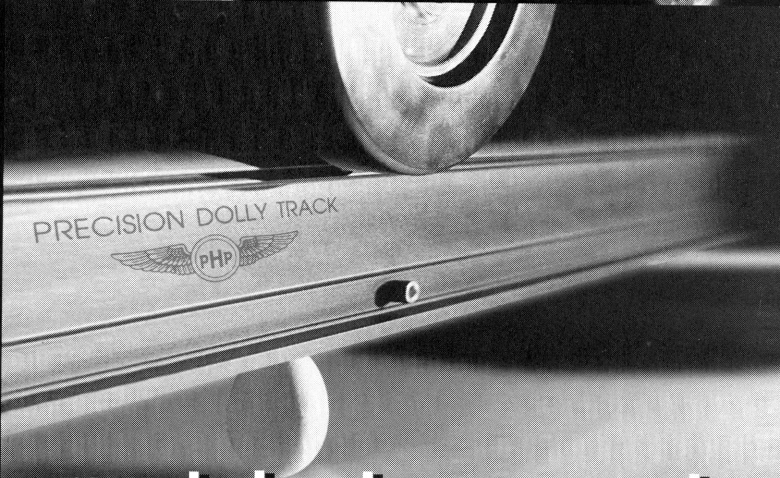
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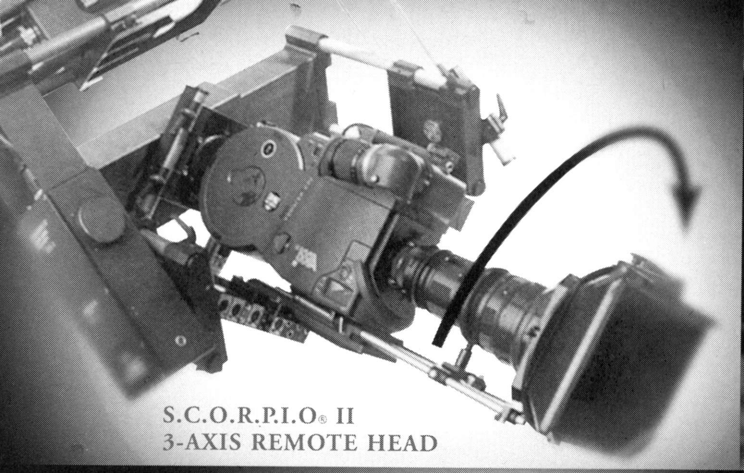

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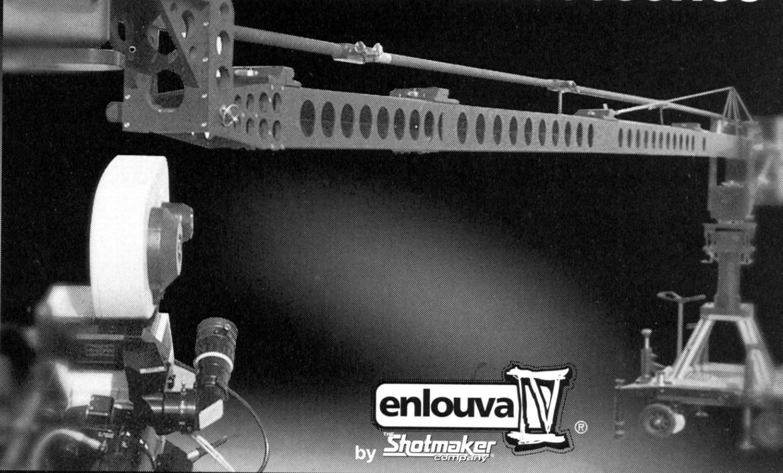

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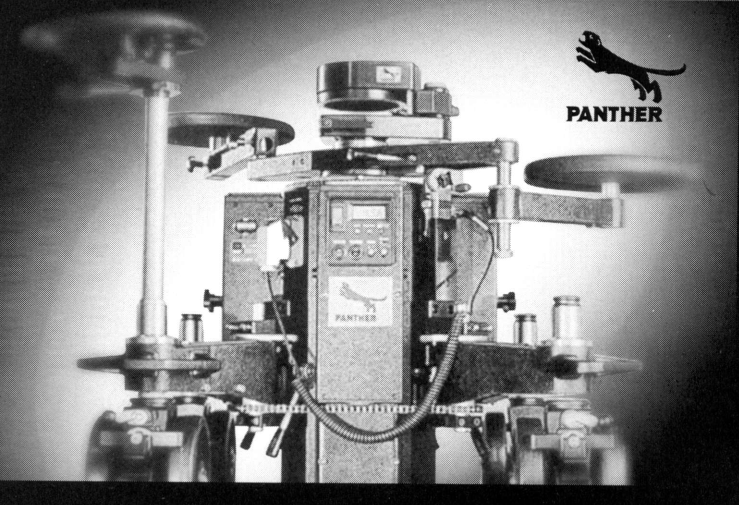

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door. But Lucas additionally wanted to include additional shots of Oola rolling into the pit of the towering Rancor monster in order to clarify that she's about to meet a grisly demise in the creature's belly. Fortunately, the actress who had originally played Oola was found. Anderson and company supplied her with a headdress of fleshy horns, coated her in green makeup and draped her in the original costume.

Anderson and his team of 50 model/creature shop colleagues also created the wigs, costumes and prosthetic makeups for two additional Rebo Band backup singers. But not all the denizens of Jabba's throne room exist in the real world. The creature called Yuzzum, an Ewok-eater with a huge mouth, was constructed as a puppet for *Jedi*, even though he never appeared in any of the film's original scenes. ILM's animators have reinvented the Yuzzum in the CG realm. "Yuzzum is this hairy creature with a deep voice who runs around and sings," Hutchinson explains. "He has a huge mouth which can open up to almost half the size of his body, so that was an aesthetic challenge. Also, he has ruffled fur which we've kept real short for design reasons, as well as to keep the render times down and to control lighting issues. We've done fur in the past, but it's still a bit of work to put fur on any creature and make it look natural."

Since Yuzzum's puppet counterpart had been excised from the original *Jedi*, ILM's artists could modify the Ewok-eater without worrying about continuity issues. Not so in the case of the Max Rebo Band's lead singer, Sy Snootles, a character who consists of a pair of luscious red lips on the end of a long stalk sprouting from a yellow bulbous body atop super-spindly legs. Lucas was determined to do away with the original Sy rod puppet and transform the character into a rollicking CG rock star. While the old Sy stuck by her microphone, today's technology allows her to really strut her stuff.

Hutchinson oversaw Sy's redesign and endowed her with more graceful movements and articulations. "It was pretty scary trying to match what she was originally," he admits. "The difficulty was that we were locked into a basic shape. She has no neck, her eyes are on stalks and her arm hardly reaches out beyond her snout, so to have her running around holding the microphone to her mouth didn't make any sense. We tried to hone in on making her appear aesthetically pleasing while sticking to her original shape. Ultimately, we only kept one longer shot of the original puppet. George pointed out that even though we still recognize the puppet as Sy, we never put the old Sy and new Sy side by side."

Unlike the hand-animated CG Jabba of the *Star Wars* Special Edition, Sy's facial expressions took advantage of the latest advances in character animation — specifically, ILM's proprietary Caricature program (Cari for short), which was developed to handle the photo-realistic lip sync of *Dragonheart* (see *AC* June 1996). "We're using Cari extensively for Sy's lip animation, as well as all her facial expressions, down to the movements of her eye stalks and eyelids," Hutchinson says. "The Cari software allows the animators to build extreme positions using shaded models, and dial in multiple expressions interactively; they can then work with the changes in real time until they achieve the exact pose they want. Since Sy's lips, eyes and facial expressions are animated at a separate time from the rest of her body, we had to combine those elements with the rest of the 3-D model. The animators animated her snout in the same pass with her legs, arms and body. Next, we had to skin the surface, and then do our corrective enveloping, which simulates muscle movements and keeps the joints looking proper and not rigid. Finally, we painted and texture-mapped Sy."

After the frivolity of the song-and-dance scene in Jabba's den, the next item on Lucas' list was the Dune Sea sequence, wherein Luke Skywalker and his compatriots are poised to walk the plank on Jabba's flying sand barge and be devoured by a Sarlac, a wormlike creature lurking deep

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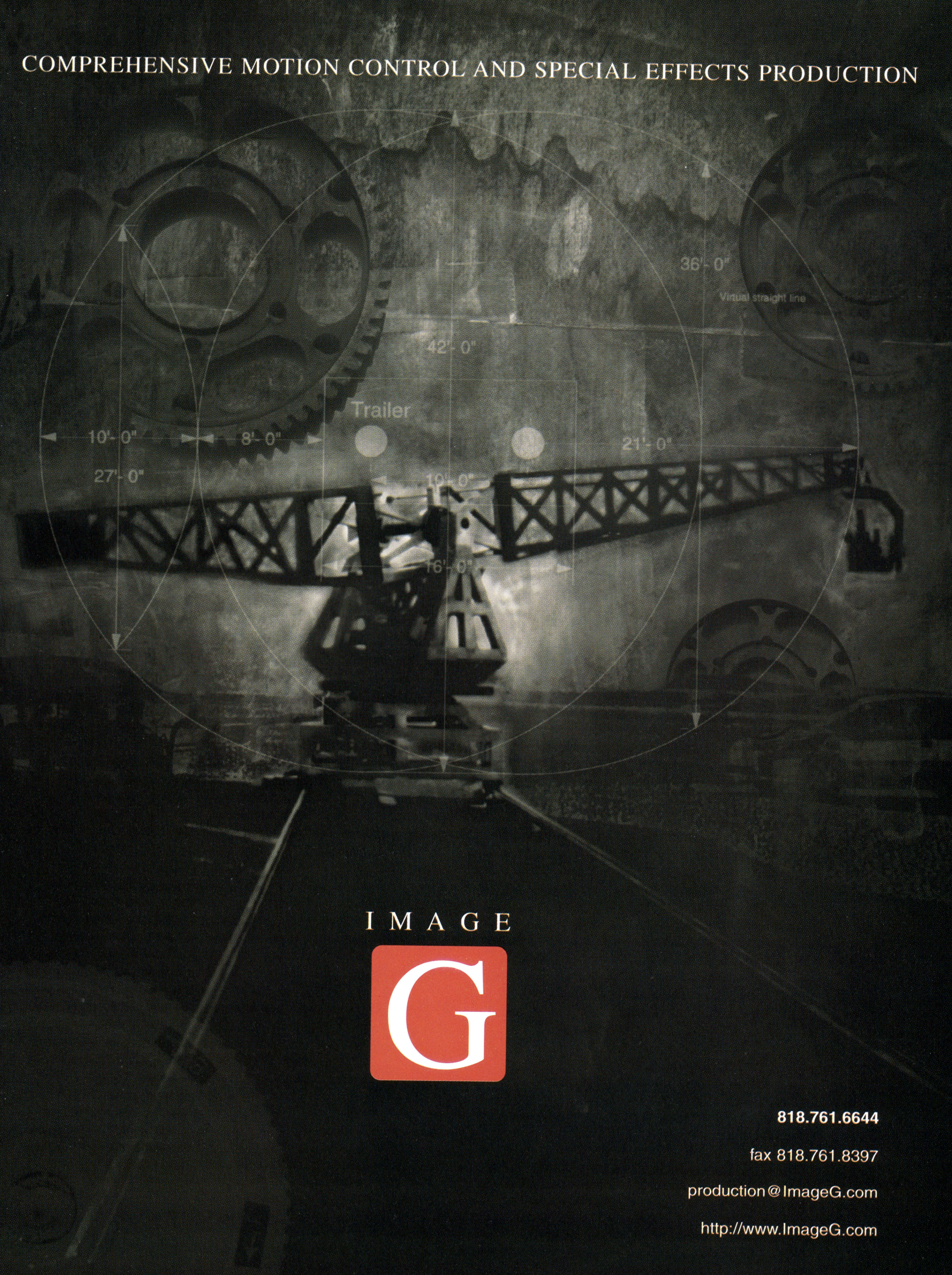
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within a sandpit. This scene presented a tremendous opportunity to add drama and menace to the death of bounty hunter Boba Fett, who originally met an anticlimactic end by tumbling into what resembled a sandy hole lined with rubber teeth. Lucas and ILM have improved the sequence by adding an actual beast in the pit — a tentacled, squid-like monstrosity which devours its victims with a snapping beak. "We had fun with that, because the stuntmen did fantastic falls into this hole, and now they fall into this little beak," Carson says with a grin. "This is a better end for Boba. He still rolls into the hole, but now something eats him. I'm sure there will be some interesting sound effects as well."

The new and improved Sarlac was brought to life by John Campanaro, one of ILM's newer animators, who welcomed the opportunity to add a few finishing touches to one of his favorite childhood fantasy films. Working around a couple of existing rubber tentacles which seized actors in the original plates, Campanaro added half a dozen more in an effort to make the Sarlac more threatening. "I tried to incorporate the CG beak and tentacles with the practical tentacles pulling in a few characters that were there originally," Campanaro explains. "The tentacles are just a series of joints that get smaller towards the tip, so animating them involved a series of rotations. I animated the tentacles using keyframes, keeping 12 or 14 frames between each pose. Since the computer smoothly 'inbetweens' each shot, it doesn't call for a pose-set on every frame. I also animated the beak using rotational values, making it translate up and down in the pit. The tongue has four joints which can be articulated. We rotoscoped the characters who originally dove or fell into the pit, such as Boba Fett, so that the beak could appear to come up behind and in front of them. This makes it look as if they're actually being swallowed."

The biggest difficulty in adding CG effects to shots with in-camera effects — nearly 15 years later — was making the new elements appear as though they had

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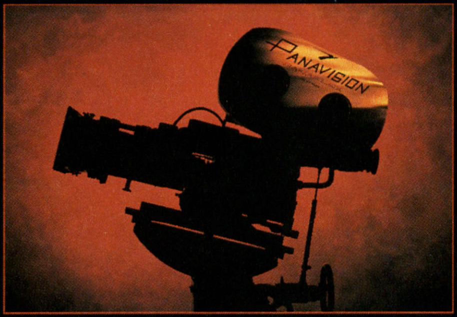

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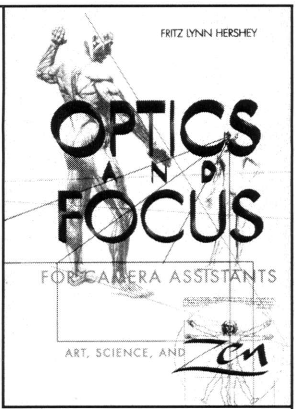

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been featured in the original footage. "A lot of effort went into matching the lighting and the texture of the character and the original film grain, so the Sarlac wouldn't pop off the old plates," Campanaro says. "Since the monster was really in a sandpit, a lot of sand got picked up during the original plate shoot, and that atmosphere has to be added on top of our CG work. We used particle systems so the creature wouldn't look like as if it had just been popped in there."

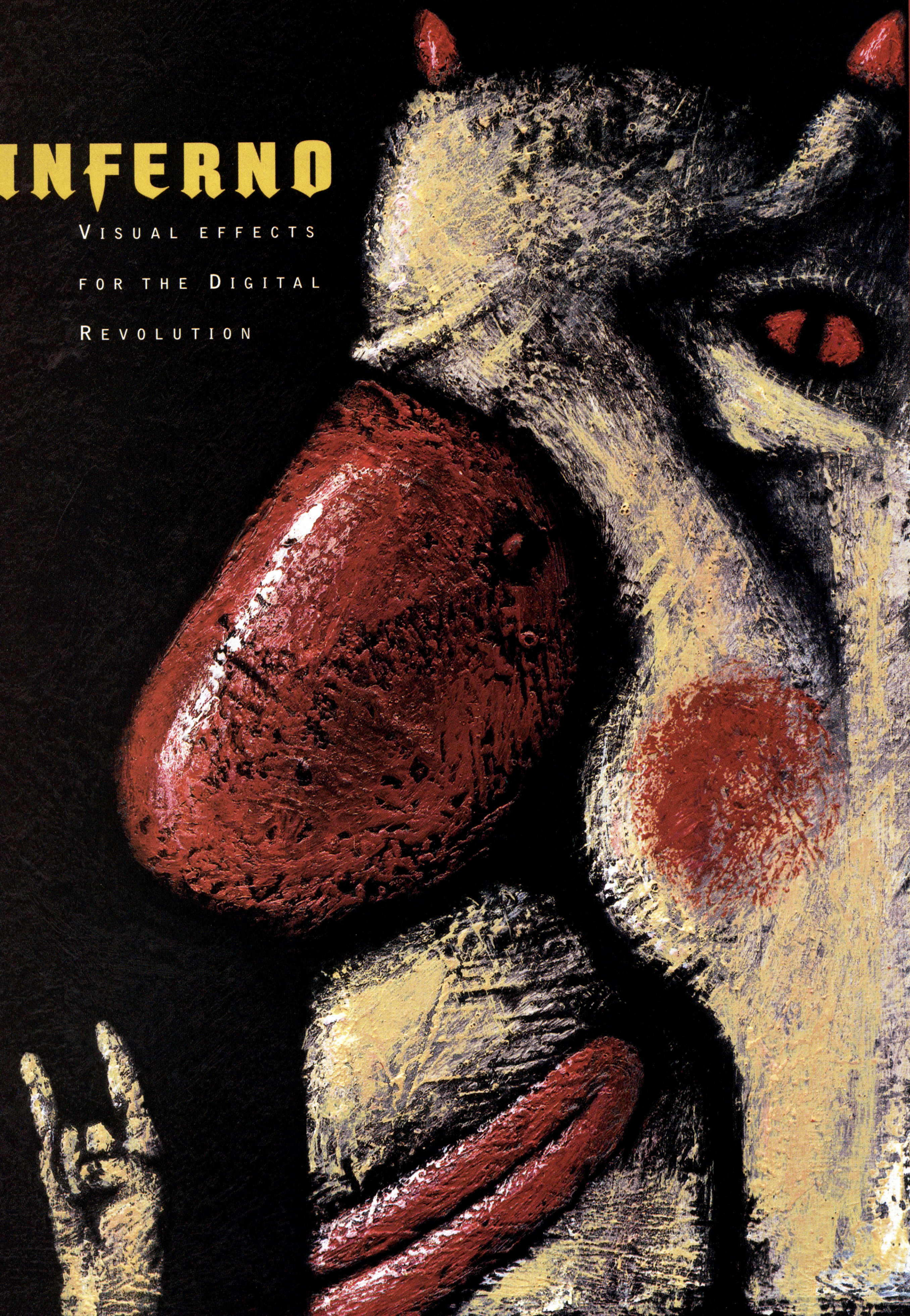
The Sarlac animation was just a warmup compared to the chore of displaying the entire landscape of Tattoine's lumbering desert wasteland with Jabba's barge in the background, sand skiffs in the midground and the Sarlac in the foreground. "There are shots where we spent 80 percent of our time re-creating the original composites and 20 percent just putting the tentacles and beak in," reports CG supervisor Hutchinson. "The original shots contained various elements: two sand skiffs shot against bluescreen, several matte paintings, and the original plate shot on location [in Arizona]. All the roto work for the laserbolts and Luke's lightsaber had been farmed out to another company, so it's been very difficult to find very much of those original elements. We've had to re-create the green lightsaber and the red laserbolt animation, and blend it into the location shots with all of those matte-painting and bluescreen elements, exactly as if it had been done optically."

Perhaps the most amazing inclusion of all is a montage of planetary celebrations after the defeat of the Empire, with masses of CG extras carousing on the planets of Bespin, Tattooine and Endor. "We've added several shots showing more than just the Ewoks celebrating the victory over the Empire," Carson says. "There are quick cuts to mobs cheering on other planets to show that it really is a galaxy-wide event. Hopefully it'll be a rousing ending."

While the film's Endor forest sequence remains virtually unchanged, new shots of Tatooine and Bespin were created using CG elements built for the *Star Wars* and *Empire* Special Editions. The various worlds are connected via a single continuous moving pan, with wipes making subtle transitions between each environment, accompanied by a newly re-orchestrated John Williams score that ties everything together. "When we go back to Tatooine, instead of re-creating stuff from scratch, we actually cut, pasted and reworked shots already redone for *Star Wars*," Hutchinson reveals. "We took the downward view of all these people walking along the avenue in Mos Eisley, and readjusted our camera position. We also took a different view of the same Cloud City environment built for *Empire;* we start at ground level, then do a tilt up toward the spires."

There's also a fourth world that audiences will view for the first time, one which plays a dramatic role in the upcoming trilogy: Coruscant. The *Metropolis*-style galactic capital, which the Emperor of the Universe calls home, was originally visualized by concept artist Ralph McQuarrie. Now, the Special Edition's art director, George Hull, and ILM have provided audiences with a tantalizing peek at what awaits them in upcoming installments of Lucas' epic saga. "We start up high, looking down at the Emperor's city — a huge, spread-out metropolis," Hutchinson enthuses. "Then we tilt down through the buildings until we reach the ground plane, where we see crowds, confetti and a huge parade."

This dazzling shot of Coruscant is actually a teaser for the effects that Lucas has planned for the upcoming prequels, many of which have been pioneered for these Special Editions. "One of the things we were told right up front was that we would hopefully be able to apply some of the things we learned on *Empire* and *Jedi* to the new prequels," Hutchinson states. "While budget and time considerations didn't really allow the Special Edition films to serve as R&D projects, I think George wishes we could have taken more of that kind of approach. Still, we've learned tremendous amounts of information that we can use when we do reach the R&D stage on the prequels." ◆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"Film Fever" Sweeps Sundance '97

Cinephiles who toughed out crowded venues and the "Sundance flu" were treated to an eclectic program that spotlighted first-time filmmakers.

by Stephen Pizzello and Michael X. Ferraro

The queues are long, and the "hard tickets" in short supply. Cocktail parties offer less elbow room than the Wailing Wall. The best restaurants and condos are always booked solid, cellular phones trill a shrill symphony, and mysterious viruses occasionally fell unwary filmgoers.

Yes, the Sundance Film Festival has officially become a full-blown, safari-style adventure, but it remains America's premiere showcase for independent cinema. Hardy souls willing to brave the event's logistical challenges are still rewarded with an intriguing slate of selections which offer a wide and welcome range of unconventional artistry.

If the 1997 edition of this annual event had a unifying theme, it was the prominence of first-time filmmakers — particularly in the festival's Dramatic Competition, where intriguing debuts were the order of the day. *AC*'s annual roundup reflects this trend, focusing on nine entries that showcased fresh perspectives and audacious filmmaking instincts. — S. Pizzello

SUNDANCE AWARD WINNERS

Grand Jury Prize:
Sunday (drama), producers Jonathan Nossiter and Alix Madigan; *Girls Like Us* (documentary), producers Jane C. Wagner and Tina DiFeliciatonio.

Cinematography:
Hurricane (drama), Enrique Chediak; *My America... or Honk if you Love Buddha* (documentary), Christine Choy.

Filmmakers Trophy:
In the Company of Men (drama), director Neil LaBute; *Licensed to Kill* (documentary), director Arthur Dong.

Directing Award:
Hurricane (drama), Morgan J. Freeman; *Licensed to Kill* (documentary), Arthur Dong.

Waldo Salt Screenwriting Award:
Sunday, James Lasdun and Jonathan Nossiter.

Freedom of Expression Award:
Family Name, producer Selina Lewis, director Macky Alston; *Fear and Learning at Hoover Elementary*, producers Laura Angelica Simón and Tracy Trench, director Laura Angelica Simón.

Special Jury Prizes:
Sick: The Life and Death of Bob Flanagan, Supermasochist (special recognition), producer/director Kirby Dick; Parker Posey (performance), *The House of Yes; Going All the Way* (production design), designer Therese DePrez.

Latin American Cinema Award:
Landscapes of Memory (Brazil), producers José Araúgo and Michelle Valladares, director José Araúgo.

Short Filmmaking Award:
Man About Town, directors Kris Isacsson and Matt Gunn.

Hurricane **(U.S.)**
Director:
Morgan J. Freeman
Cinematographer:
Enrique Chediak

Joining the ranks of street-child cinema — a subgenre that sprang up decades ago with William Wyler's *Dead End* (1937) and hit a high mark most recently with Larry Clark's in-your-face *Kids* (1995) — is *Hurricane.* Written and directed by NYU graduate Morgan J. Freeman (no relation to the renowned actor), and photographed by Freeman's fellow alumnus Enrique Chediak, the film took home this year's Audience Award at Sundance, as well as the jury prize for Best Cinematography in the dramatic competition.

The film's protagonist is Marcus (Brandon Sexton III, from last year's Grand Prize winner *Welcome to the Dollhouse*), who is just turning 15 and waiting in vain for his uncle to send him a plane ticket to his birthplace of New Mexico. Marcus spends most of his time shoplifting compact discs and sneakers with his mostly harmless gang of buddies, and seems to realize that there's not much of a future for him in New York. But since his father is dead and his mother is in jail (for aiding Mexicans' entry to the country, he is told), the adolescent must bide his time in the Big Apple. This means hanging out in the gang's bomb-shelter clubhouse, and fending off plans for more serious criminal activity, which are constantly proferred by the hot-tempered Chip (David Roland Frank).

In the middle of the summer, Marcus begins a romance with Melena (Isidra Vega), whose domineering father refuses to let her out of their apartment. But after his only male role model is forced to flee town, and a fatal accident takes place, Marcus finally takes action to steer his life back to a relatively normal course.

A native of Ecuador, Chediak came to NYU after attending school in Santiago, Chile, where he worked with director of photography Hector Rios. He later met and collaborated with Freeman on a short film entitled *Boom.* "We didn't want *Hurricane* to look [as if it were] a documentary, or handheld," says Chediak. "We wanted to make it a bit stylized without losing the New York look.

"I felt the film should be

Photo credits clockwise from top left: Dale Robinette, courtesy of Last Time Productions, Inc.; Bruce Birmelin and Robert Zuckerman, courtesy of Hollywood Pictures; unknown at press time.

shot on Kodak 5248," says Chediak, who also operated camera on the project. "I prefer it to the 45, which is too rich for what we were going for." Still, he ended up overexposing the stock by one-third of a stop to "make it a little richer. The thought was always, 'It's a movie, so let's treat it like a movie.' The 48 definitely has a movie palette, as opposed to 98." Chediak did use 5298 for night exteriors, so he performed some tests and found that he could match the two stocks by rating the 98 at 320 ASA.

The film's script implicitly implied rather fluid camera moves, but one low-budget escapade required Chediak to move his Arri BL-4 (equipped with Zeiss Superspeed lenses) in a manner not traditionally taught in film school — illegally. Needing to shoot a crucial scene in which Melena waits for Marcus in NYC's bustling Penn Station, the small *Hurricane* crew ventured discreetly into the location, sans permit. "We were very paranoid," recalls Chediak. "We were standing there saying, 'Should we shoot, or should we put the camera back in the duffel bag?'"

Eventually, the crew did capture an impromptu scene. Chediak says that he even managed to use a bit of bounce lighting.

Recalling *Hurricane*'s preproduction period, Chediak says, "We started by watching a lot of other films, but the one that Morgan always talked about was *The 400 Blows*. It has a very free feeling. So we wanted to add camera movement whenever possible, especially during exteriors, when the kids were always moving."

The cinematographer gives major kudos to gaffer Karsten "Crash" Gopinah, and credits key grip Andy Thomas for devising some "very interesting ideas about how to lay track."

While the production had two or three days of Steadicam use, the crew also occasionally resorted to "filmschool ingenuity" to get some interesting camera movement. One improvised rig, used for car interior shots, was dubbed the Bungee-Cam. Aided by Chilean first assistant Miguel Goan Littin, the crew attached C-clamps to the roof of the van. They then suspended their BL-4, rigged with a 400' magazine, from the clamps with bungee cords, effectively dampening the jolting effects of the road while allowing maximum mobility in the small space. "The only problem was finding a nice smooth street in New York," the cameraman laughs. — M. Ferraro

***Clockwise from upper left: Future Beat icon Neal Cassady (Thomas Jane) knocks out a letter to his pal Jack Kerouac; Steve Prefontaine (Jared Leto) leads a pack of runners;* Prefontaine *director Steve James (left) with cameraman Peter Gilbert; Young Man (Glenn Fitzgerald) stands over the sprawled Teen (Karine Adrover) in* Rhinoceros Hunting in Budapest.**

Prefontaine (U.S.)
Director: Steve James
Cinematographer:
Peter Gilbert

The true story of American track star Steve Prefontaine is certainly compelling filmic fare. So charismatic that he was dubbed "the James Dean of track and field," Prefontaine shattered every U.S. distance-running record (from 2,000 to 10,000 meters) as the star of the fleet University of Oregon track team. However, in his much-anticipated debut on the world stage at the tragedy-tainted 1972 Munich Olympics, he suffered a devastating disappointment, finishing fourth. Dejected but still determined to win gold, "Pre" turned down a substantial post-Olympics endorsement offer in order to maintain his amateur standing and position himself for the '76 Games. But the 24-year-old phenom's chance at athletic redemption ended suddenly when he was killed in a tragic car accident.

Working with the full cooperation of Prefontaine's family and close friends, director Steve James and cinematographer Peter Gilbert —who had previously teamed to produce the universally acclaimed 1994 basketball documentary *Hoop Dreams* — made the runner's story the basis of their first feature film collaboration. "The in-

Upper left/ lower left: ***Levittown's own beauty queen tones up in*** **Wonderland*****, directed by NYU grad John O'Hagan, who shoulders his trusty camera.*** **Upper right:** **Prisoner of the Mountains** ***tells a tale of Russian soldiers held for ransom by rebels in the Caucasus.*** **Lower right:** ***In a symbolic composition from*** **My America. . . Or Honk if You Love Buddha*****, the film's director, Renee Tajima-Peña, is seen as a child during a visit to the Statue of Liberty.***

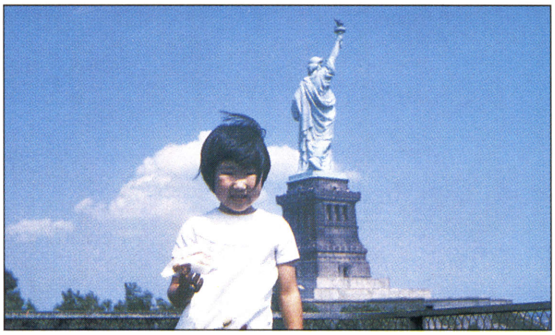

Photo credits clockwise from top left: John O'Hagan; courtesy of Orion Classics; unknown at presstime; John O'Hagan.

teresting thing about this story is that it's about a guy who isn't immediately likable," says James. "In fact, a lot of people thought Prefontaine was an arrogant jerk. Add to that the fact that he doesn't win the big race and you've got yourself a pretty interesting basis for a movie."

According to Gilbert, who once ran track himself, the duo's experiences in documentary filmmaking proved to be an invaluable asset during production — especially after Hollywood Pictures decided to cut the project's initial budget by nearly two-thirds, bringing the bottom line down to roughly $8.5 million. "It may sound really evil for a filmmaker to say this, but in a way, that was the best thing that could have happened to us," Gilbert opines. "Even though Steve had a green-lit script [co-written by Eugene Corr], he went back and rewrote it to incorporate a more documentary style. It was a very freeing thing, because we could go back to our roots and do the kinds of things we knew how to do. In the end, that lent a certain amount of immediacy to the footage."

Prefontaine was filmed in Super 16 for blow-up to 35mm, allowing Gilbert to shoot most of the film handheld with zoom lenses. His weapon of choice was an Aaton ("In my opinion, it's the best camera available for shooting 16mm handheld," he says), most often in combination with Canon's 8-64mm and 11.5-138mm zoom lenses. Gilbert also benefitted from special rigs and gadgets provided by New York's Abel Cine Tech, particularly an electric zoom-control built into a Microforce handgrip that was cut to fit the specific contours of his hand.

The cinematographer shot much of the film on Eastman Kodak 7293 stock, but he estimates that he used 7245 for "85 to 90 percent" of the running footage. Describing the duo's typical shooting method, Gilbert relates, "Steve would block out the scenes, and a lot of times we would do multiple takes so I could just go wherever I wanted to go to get different coverage. During one take I would stay more on one character, and on the next I'd focus on someone else. I could walk with people, move between them, and track alongside them without having to deal with dolly tracks or any other encumbrances."

This freedom of movement proved particularly valuable while the filmmakers were shooting the picture's race scenes, which often place the viewer right on the track with the runners. Gilbert and Steadicam operator Robin Buerki often shot simultaneously from motorcycle rigs constructed by Ned McBride. "By doing that, we'd get one shot that had more of the smooth, drifting feel of the Steadicam, and another that had more handheld energy," Gilbert explains. "I shot a lot of the race footage at very long focal lengths because I wanted it to have that sports feel, where you're sort of finding focus as you go."

In addition to staging extremely realistic race footage and faux documentary interviews in which actors portrayed Pre's family and friends, James and Gilbert also deftly intercut real footage of Prefontaine in action with shots of the film's lookalike star, Jared Leto. The tactic may sound risky, but the subtle and often surprisingly invisible transitions lend the film an adrenalized charge, particularly during the Olympic showdown. "If we had tried to re-create the close-ups of the real Pre, we never could have done it," James maintains. "Those shots say so much about the guy's character. He literally left everything on the track."

"Because we were intercutting our scenes with the real Olympic race, we had to choreograph things very carefully," Gilbert notes. "The real race was so exciting that there was no need to embellish it. We staged those scenes at Husky Stadium in Washington, carefully positioning our crowd extras to make the stadium look as if it was packed. We also had a pair of great running advi-

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sors to help us: Geoff Hollister, who was one of Pre's friends, and Pat Tyson, who actually ran with Pre."

Says James, "The thing I like most about Peter's footage is that it's very understated and *real*. He knows that he can make beautiful pictures, but that wasn't what this story was about. The combination of the camera movement and the blow-up gives the film a very authentic feel; in fact, a lot of people have asked us what we did to make it look as if it was actually shot in the 1970s."

Gilbert also feels that the film's style suits its message. "This film isn't like the typical glossy sports movie, where the hero triumphs in the end. A lot of times, society doesn't prepare you to fail. Everything in this country is about achieving, but what if it doesn't work out? Our film is about a guy who grows as a person because he doesn't achieve his dream, and I find that inspiring. I hope kids will go see this film and realize that there's more to life than just winning the gold medal or scoring the winning shot."— S. Pizzello

My America… Or Honk if You Love Buddha (U.S.)
Director:
Renee Tajima-Peña
Cinematographer:
Christine Choy

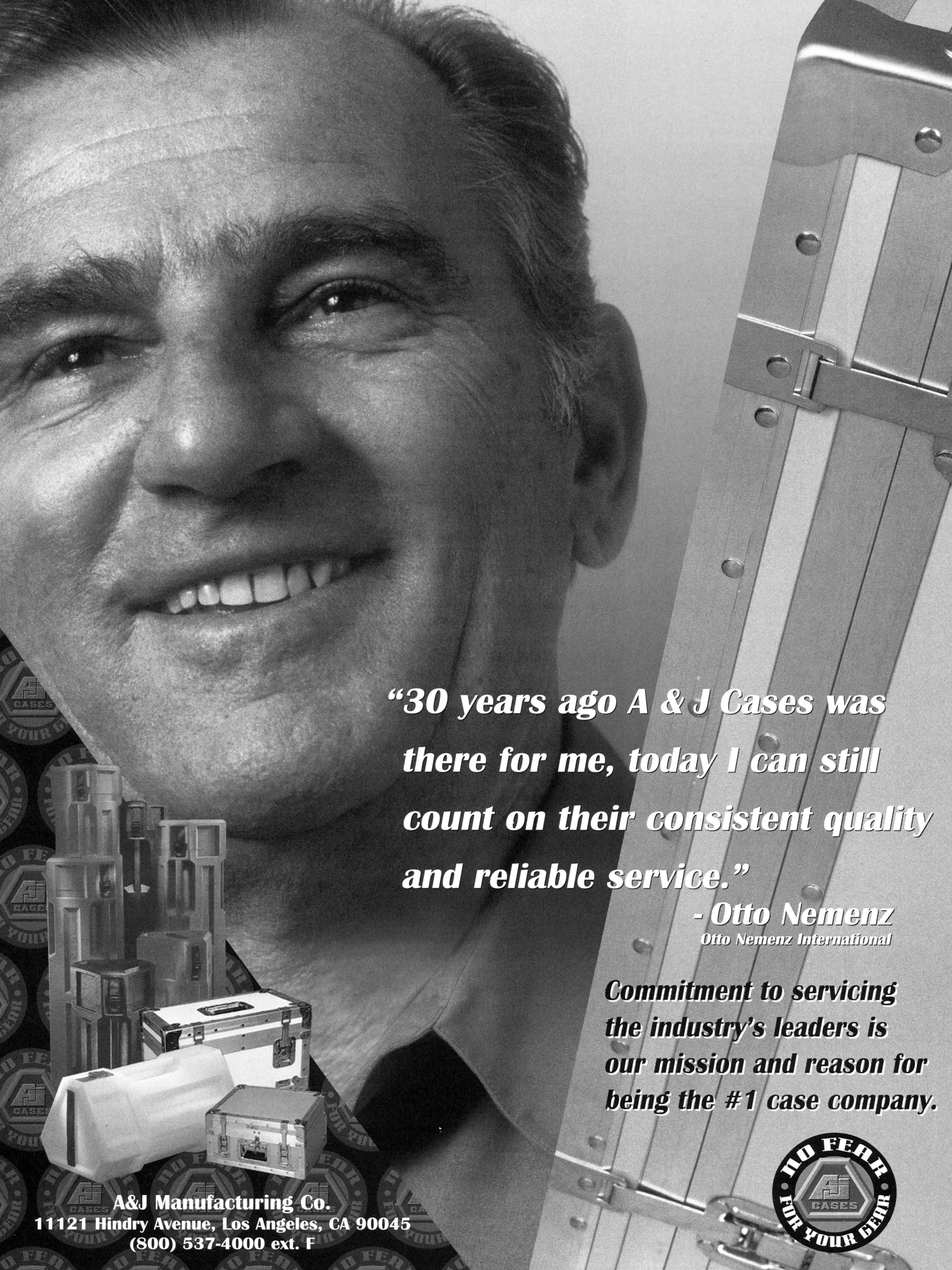
Having driven across the country on childhood road trips with her family during the 1960s and '70s, Renee Tajima-Peña recalls passing through five states without seeing another Asian face. As an adult, the Academy Award-nominated documentarian (*Who Killed Vincent Chin?*) decided to climb behind the wheel and discover the Asian-America that's become more noticeable and accepted over the years. The project's seed money came from The Corporation for Public Broadcasting, which funded three documentaries for its *Rediscovering America* series (one of the others, Ross McElwee's *Six O'Clock News*, also played at Sundance this year).

Admitting that she began making *My America* with a "very old perception of myself and other Asians as marginal, [existing] on the peripheries of America," Tajima-Peña encountered a wonderfully diverse array of characters. Among them were a pair of young, Seattle-based Korean rap artists called the Seoul Brothers; Bill and Yuri Kochiyama, family friends of the Tajimas who began their courtship during World War II, when Bill was serving the U.S. in the all-Japanese-American 442nd Battalion, and his wife-to-be, Yuri, was behind barbed wire in an internment camp; and the 'sixtysomething' Burtanog sisters, poker-playing eighth-generation New Orleans Filipinos who were "honorary whites" during the Jim Crow days, and whose household even produced a Mardi Gras Queen.

Narrated by Tajima-Peña, the end result is a folksy, funny and bittersweet film that presents a rich history. The director describes the documentary's visual approach as "very freeform and Americana-oriented." The road footage and interview sequences, shot mainly by primary cinematographer Christine Choy, have been combined with old home movies and photos, archival footage, and images from pop culture. This cross-cultural collage, which features additional photography by cinematographers Chris Li, Dana Cupper, Michael Negroponte, Nancy Schreiber, ASC and Jim Mulryan, wound up winning Sundance's Documentary Cinematography Award.

"I was really thrilled, but that's not what I would have predicted," says the director, who mournfully notes the scarcity of 16mm documentaries in the Sundance competition. Choy and most of her cinematographic colleagues used an Arri SR camera, while Schreiber and Mulryan wielded Aatons. Tajima-Peña notes that they were all pleased with the Cooke 9:5-57mm lens, which allowed the tiny crew to "be fast and very intimate" with their filmed interviews.

Since the production spanned a five-year period, portions of the film were shot on now-obsolete Kodak 16mm stocks, which had to be successfully intercut with newer footage filmed with



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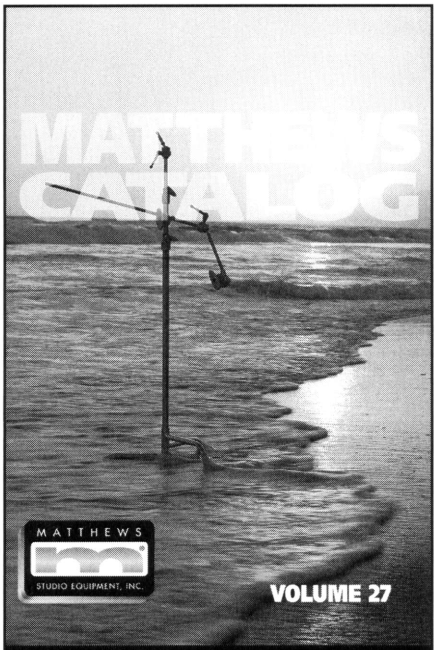

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7245 and 96. Consequently, Tajima-Peña had to go through three answer prints (her personal record) at DuArt. The process was supervised by timer Dave Popes, who earned her praise.

My America was edited in traditional fashion on a flatbed by four separate editors: Negroponte, Jean Tsien, Johanna Demtrakas and Jon Neuburger. Tajima-Peña explains, "I'd run out of money, and then they'd move on."

Besides being the maker of the documentary, Tajima-Peña is an integral part of the film as well. Her childhood and family background, as well as various phases of hippiedom, disco dancing and student activism, are woven in with the other Asian-Americans' stories to great effect. One startling moment is the director's recollection of a spoken report she made in grade school at age 10. While speaking about her family's experiences at the internment camps during World War II, the young Tajima-Peña was cut off by her teacher, who denounced the information as "a lie."

In order to lend her film some additional ballast, Tajima-Peña had initially intended to incorporate a fictional "Zelig-type character" into the mix. "Road movies start to meander sometimes," she reasons. "So I thought we should have a central character with a dramatic arc."

Enter Victor Wong, the charismatic Chinese actor whom the director seemed to recall from Wayne Wang's film *Chan is Missing* (1982), which she had seen as a child. During that era, Asian figures were so scarce in the media that her family would gather around the television just to watch a poorly made-up Caucasian actor playing an Asian. This memory came to a full, ironic circle when Tajima-Peña ventured to San Francisco's Chinatown to meet with Wong, only to learn that he was not the same actor she remembered; Wood Moy had actually starred in *Chan is Missing*. The director makes light of her mistake in the film's voice-over, asking, "Could it be we all do look alike?"

The mistake turned out to be a happy one, however, as Wong became the spiritual touchstone of *My America*. His real life proved so fascinating that Tajima-Peña quickly eliminated her plan to fictionalize the actor's inclusion in the film. Despite the diversity of lives detailed in the film, the 69-year-old Wong was always ready with a relevant anecdote. An actor (*The Last Emperor*, *Joy Luck Club*), wanderer, ex-photojournalist and beatnik (Jack Kerouac prominently mentions the womanizing Wong in the author's *Big Sur*), Wong became the one-man microcosm of Tajima-Peña's on-the-road revelation.

— M. Ferraro

Wonderland (U.S.)
Director/ cinematographer:
John O'Hagan

Demonstrating a wry sense of humor, a keen eye for detail, and impeccable comic timing, 28-year-old New York University alumnus John O'Hagan wowed Sundance audiences with *Wonderland*, an affectionate and often hilarious documentary about the past and present fortunes of Levittown, Long Island. Designed in 1947 to help alleviate the nation's drastic post-war housing shortage, the "planned community" has long attracted an array of unique and occasionally eccentric residents, many of whom welcomed O'Hagan into their (identical) homes. The cinematic result is a crazy-quilt cross-section of Levittown life, replete with affectionate odes to karaoke, bingo, bowling, block parties, beauty pageants, garage sales, ghosts and even (gasp!) wife-swapping.

"Having grown up in the suburbs myself, I have suburbia in my blood," says O'Hagan. "I'm also a real fanatic about Americana, and Levittown struck me as being a fascinating American phenomenon. I'd known about the town for a long time, but my interest was really sparked a few years ago when I read an obituary about [town architect] William Levitt."

At the time, O'Hagan was enrolled in NYU's graduate film program, and he began making visits to nearby Levittown. After meeting and befriending some of

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the colorful characters who populated the place, O'Hagan decided to make both the town and its residents the stars of his thesis project.

"I didn't want to do a straight historical documentary, because I thought I'd be in a bit over my head," he admits. "I did do a lot of background research on Levittown, and a woman named Leanne Clifton helped me track down file footage, most of which was found at Archive Films in New York. But I was more interested in doing a study of people's lifestyles. I mainly tried to meet and interview as many people as I could before I started shooting."

O'Hagan used his field research to prioritize his shooting agenda and avoid wasting expensive 16mm film stock on footage that would never appear in the movie. "I was lucky enough to get a grant from the New York State Council on the Arts, and that basically covered the cost of the production," he says.

The young filmmaker shot most of the film over 12 days in the spring of 1995. He says that his stylistic approach to the material was influenced by the work of a variety of artists — photographer Diane Arbus; author Flannery O'Connor, whose books are rife with comic detail and Americana; and ace documentarian Errol Morris, whose credits include *The Thin Blue Line* and the new *Fast, Cheap and Out of Control,* a fascinating collaboration with cinematographer Robert Richardson, ASC that also debuted at this year's Sundance Fest. "The Morris film that influenced me the most was *Vernon, Florida,*" O'Hagan says. "It's about these characters in this town who have interesting lifestyles and philosophies. I saw the film while I was making mine, and it was very inspiring. Errol Morris changed documentary filmmaking with his appreciation of and affection for the absurd."

When he was ready to shoot *Wonderland,* O'Hagan raided NYU's equipment arsenal. His ended up using an Arri SR with sound recorded on digital audio tape (DAT). The filmmaker's bare-bones lighting package consisted of an Arri kit, a 2K zip light, and some 500-watt inkies. He also employed a Tiffen 812 warming filter throughout production.

O'Hagan manned the camera himself, but he had the assistance of a skeleton crew that generally consisted of camera assistant Shawn Honea and any one of a revolving lineup of sound recordists. "We had to work very fast, because we were doing about three interviews per day," he recalls. "I didn't want to overlight people, so I really tried to use the practical lights in the houses as much as possible. We were shooting with Eastman Kodak's 7248 stock, which has a rating of 100 ASA, and I wasn't sure how much lighting there would be in the houses. We usually used the zip light to fill out a room and bring the light level up a couple of stops, and an Arri light to highlight certain objects in the room. We blew a few fuses here and there, but it all worked out in the end."

To ensure good compositions in the often cramped interiors, O'Hagan shot much of the film with a Zeiss 9.5mm wide-angle lens. On one occasion, he switched to a 5.9mm lens to lend an eerie, supernatural feel to a house supposedly haunted by a ghost. "The houses were as much characters in the film as the people," he explains. "I wanted to use wide angles to really show the spaces these people live in."

The filmmaker says that his biggest challenge was in capturing the authentic feel of Levittown life without disrupting its natural flow. Particularly sensitive was the first sequence he shot for the film, in which a group of war veterans engage in a solemn flag-burning ritual. "It was a very moving ceremony," he submits. "To those people, burning the flag involved remembering friends who had died in combat. It was an unbelievable experience to be there and to capture the ceremony on film, but at the same time I didn't want to intrude. Documentary filmmaking involves a fine line; you want to capture the events on film, but you also want to maintain a respectful distance."

The film's most endearing qualities are its embrace of human idiosyncrasies, and its fundamental belief in an individual's ability to triumph over the calculated conformity of an engineered "utopia." O'Hagan concludes, "I wanted the film to be about the cyclical nature of the human experience. There are a few generations of people in it, and the interviews we did covered many years — from the time they moved to Levittown up to the present — and also incorporated the residents' thoughts on the future. My intention was to create a kaleidoscope of different characters and scenes that would build to a cumulative effect. My ultimate hope, of course, is that it will stay with viewers after they've seen it."

At press time, O'Hagan was still pursuing distribution for *Wonderland,* which was scheduled to be shown at key film festivals in both Berlin and his birthplace of Dublin, Ireland. The filmmaker is also planning to arrange a screening of the picture for his new friends in Levittown. — S. Pizzello

Prisoner of the Mountains

(Russia-Kazakhstan)
Director: Sergei Bodrov
Cinematographer:
Pavel Lebeshev

Very few motion picture productions can claim that the director was held hostage for financial reward during the shoot. But *Prisoner of the Mountains* is one such film.

Directed by Sergei Bodrov (also credited as a producer and writer on the $1.5 million film) and photographed by Pavel Lebeshev, the visually striking picture has already won the Public Prize at Cannes, and was nominated for an Academy Award in the Best Foreign Film category.

Prisoner was shot in a remote village in Dagestan, a small country bordering the film's supposed setting of Chechnya. "We wanted to find great locations, and this village was so important in this movie," explains Bodrov, whose eight-film career (which includes *Freedom is Paradise*) was recently saluted with a retrospective at the L.A. County Museum of Art. "We wanted to make it very visual and striking. Unfortunately, we

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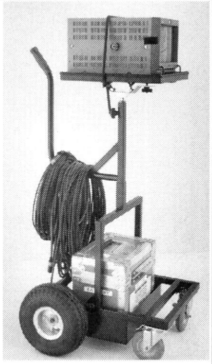

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chose a most dangerous and remote place. It was an eight-hour back-road drive from the nearest town, and two hours by boat to the real world."

To make matters worse, the production inadvertently stepped on some toes by paying Susanna Mekhralieva, a local girl co-starring in the film, a higher rate than they did the grown men working as security guards. "We had a great relationship, very professional, with the local people," Bodrov explains. "But toward the end of the shoot, some men came to my room in the middle of the night, with Kalishnikovs [Russian AK-47 machine guns], drunk and upset. One of them said, 'You are not leaving this place until you pay me $50,000. We held negotiations over 24 hours through the local police, and wound up paying him a couple thousand. Earlier in the shoot, the same guy had borrowed four or five hundred dollars from Pavel, and after he got his ransom money, he actually went back to him in the middle of the night to pay him back!"

Ransom was precisely the element Bodrov thought he had excised from his film when he adapted the screenplay from the Leo Tolstoy short story of the same name. The impetus of the movie's narrative remains the same as its source material: two Russian soldiers are captured by Chechyn rebels. But Bodrov chose to eliminate financial considerations from the tale. "Tolstoy talks about ransom, and [taking the soldiers] just for money," explains the director. "But I was interested in telling a story about exchange. It's more personal, more human."

With the immensely likable duo of Russian idol Oleg Menshikov and Sergei Bodrov, Jr. (who was rather reluctantly cast by his director father) as the two soldiers, the captors can't help but become fond of their prisoners. Even the regal, stoic Abdul (Djemal Sikharulidze), angling for an exchange because his only son is being held by the Russians, eventually shows some compassion. Meanwhile, Abdul's stone-faced 12-year old daughter (Mekhralieva) subtly nurses a crush on the

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teenaged soldier played by Bodrov the younger. Despite the captors' softening resolve, the prisoners are confined to a rickety shack, and after a thwarted escape attempt, they are transferred to a subterranean pit.

The village's amenities were not much better; at one point, the 25-person crew was forced to go without showers and running water for two weeks. Bodrov reports with a chuckle that his cinematographer was one of the most vocal complainers. Lebeshev, the son of celebrated Russian cinematographer Timofei, has worked on roughly 50 films, including collaborations with director Nikita Mikhalkov on *Slave of Love* and *Five Evenings*. The director submits, "Pavel always tells people that he has an awful character, but I can take him. He likes to create scandals, but he's really a great guy. Any normal person would complain there, too. I actually wanted to stay longer, but the crew would have hated me if we had."

Due to what he calls "unspeakable conditions," Bodrov says that the *Prisoner* crew often had to do without a generator. "Sometimes we didn't have any light at all, so we needed to use really high-speed Kodak stock." The production wound up using Kodak 5293 stock left over from the 1995 production of *Waterworld*, and shot with a Japanese LA4 camera.

Bodrov says that he relied heavily upon production designer Vlady Kostrin's expertise, and Lebeshev's photographic practicality. "There is one scene on the road at night, with the two soldiers looking for mines," the director relates. "There was no [available] light, so Pavel used only the headlights from the truck. He said, 'I can't promise you it will come out, but I will try.'" However, the resulting scene has a fist-clenching intensity — due in no small part to the sparse glow of the vehicle's lamps.

The director is quick to credit the cinematographer and actor Menshikov with lobbying for the scenes of "magical realism" that occur late in the film. Bodrov was also pleased with Lebeshev's eye for the natural beauty that surrounded the bleak mountain vil-

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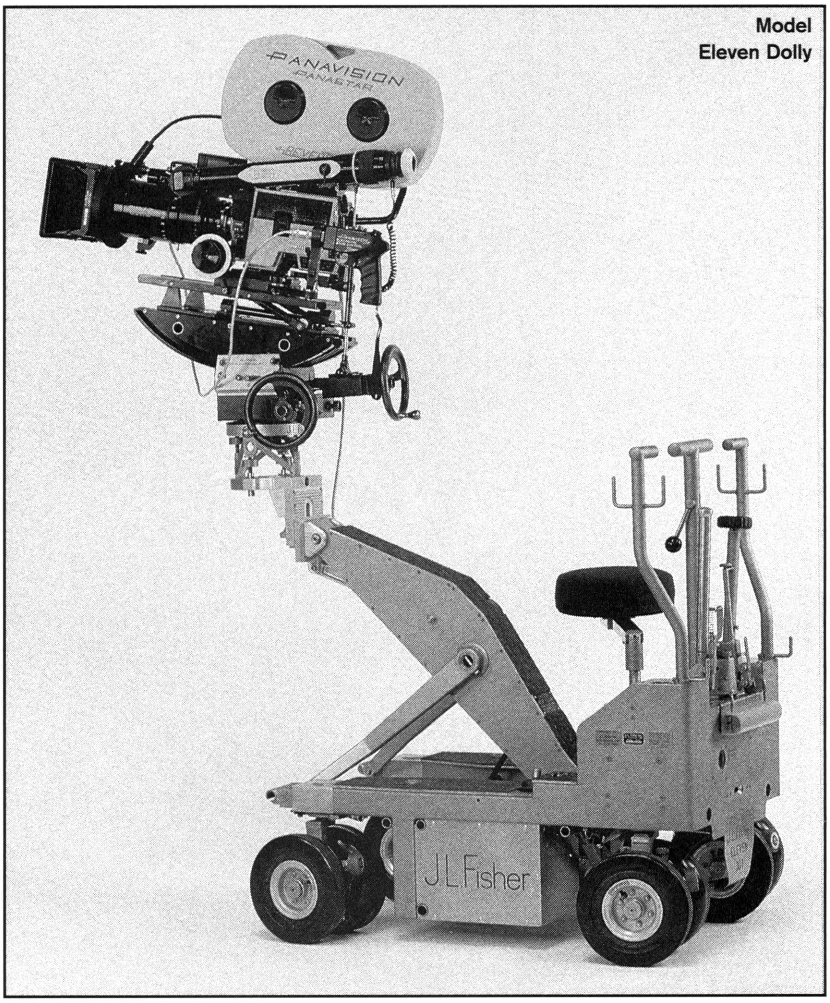

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Near right: ***Noir ambience heightens the plight of George B. (David Morse).***
Lower right: ***Cameraman Wayne Kennan, ASC (striped shirt), director Eric Lea and Morse confer while shooting a key sequence for* George B. *on a covered bridge.***

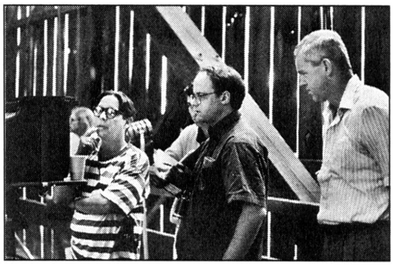
lage; the combination of the cramped prison quarters and the cameraman's "panoramic style," augmented by "a lot of natural light," works well for the story. "I wanted this movie to be beautiful, because it's a beautiful world around us," Bodrov concludes.

Particularly when you're no longer a prisoner of the mountains. — M. Ferraro

George B. (U.S.)
Director: Eric Lea
Cinematographer:
Wayne Kennan, ASC

George B. was one of this year's most unusual Sundance entries. Described by some festival wags as "a film noir version of *Forrest Gump,*" the tale concerns the travails of the title character (David Morse), a kindly but somewhat simple-minded man who's down to his last dime before a fortuitous birthday trip to Reno nets him a small fortune. Flush with his winnings, George proposes to a seemingly sweet girl, Angela (Nina Siemaszko), and starts his own cleaning company, staffing the business with old friends and a drifter named Jerry (Brad Gregg). For a time, it appears that George will finally achieve his dream of a happy home life, but when Angela and Jerry plot to exploit his largesse, the story takes a much darker turn.

With its eccentric characters and offbeat narrative, *George B.* defies conventional audience expectations, offering subtle and unique twists on familiar cinematic forms. To bring this intriguing experiment to the screen, first-time feature director Eric Lea tapped the talents of veteran cinematographer Wayne Kennan, ASC, who currently lends his steady hand to the sitcoms *Seinfeld* [see *AC* Oct. '96] and *The Single Guy*. Lea was working as an assistant editor on *Seinfeld* when he ran into Kennan in the photocopy room. The cameraman recalls, "I was copying a script that I was considering, and Eric said, 'Hey, I've got one that I'm about to do.' I asked if I could read it, and I liked it right away. It was very well-written, and it was exactly the



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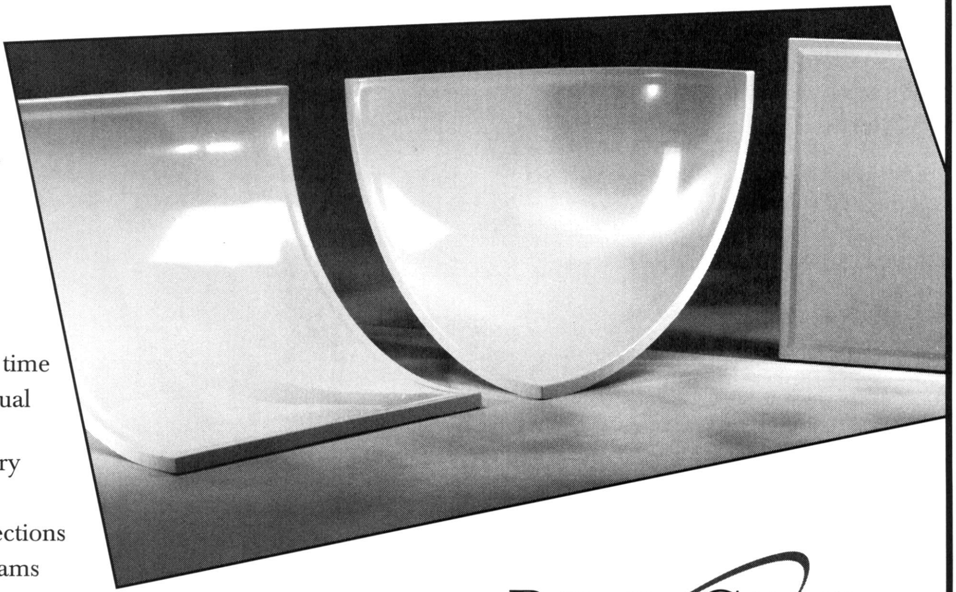

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kind of small film I'd wanted to do for a long time. Eric didn't have a cinematographer lined up yet, so I immediately volunteered."

Lea says that he admired Kennan's enthusiasm and willingness to work within the limitations of a low-budget project. "My producers, Wade Danielson and Gloria Pryor, were a bit worried that because Wayne was a 'name' cinematographer, he might not have the right attitude about shooting a small production with no money and an inexperienced crew," he says. "They were very pleasantly surprised to find that he was very gung-ho and ready to do whatever it took."

The director and cinematographer soon sat down together to watch other films and discuss visual strategies. Kennan mentioned *Stranger Than Paradise* (shot by Tom DeCillo) as a possible model, particularly in terms of its static master shots and real-time aesthetic. He also brought up the striking work that Fred Elmes, ASC contributed to the neo-noir David Lynch film *Blue Velvet*. Lea, for his part, cited the Rainer Werner Fassbinder films *Chinese Roulette* and *The Stationmaster's Wife* (both shot by Michael Ballhaus, ASC), which offer intimately involving camerawork, framing and blocking. Notes Lea, "We didn't get as static as *Stranger Than Paradise*, although you can still see traces of that style in our film. Wayne was able to execute some complicated masters in the Fassbinder tradition, where we started with one kind of a setup and then, instead of cutting to other setups, simply moved the camera and actors around to achieve two or three different looks within a sequence."

Noting that *George B.* is "a simple story about a simple guy," Kennan says that he strove for an understated, naturalistic lighting scheme. To obtain a lighting package, producer Wade Danielson put the cinematographer in touch with a contact in 20th Century Fox's lighting department. "The guy probably thought I was going to ask for a big package with all sorts of HMIs," Kennan recalls with a chuckle, "so he was pleasantly surprised when I asked for nine-lights. He loved the fact that I wanted to use older fixtures, and he gave us everything we needed after that."

Kennan shot the film unfiltered (save for the usual color correction) with a Panavision Gold camera and Ultraspeed lenses. Due to the project's budgetary restrictions, he worked primarily with short-ends (Eastman Kodak 5248 for daytime footage and 96 for lower-light situations) procured at low costs from friendly associates on the Castle Rock series *Seinfeld, The Single Guy* and *Boston Common*. "I have no problem working with older equipment or film stocks," he says, "especially when you think about how many Academy Award-winning films were shot with the same tools. As it turned out, the Ultraspeed lenses came in really handy when we simply ran out of light. There are actually a couple of 'daylight' scenes in

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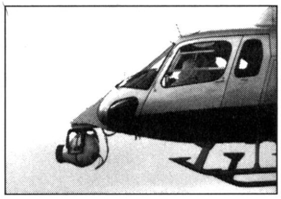

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the film that we made between 8:30 and 9 at night!"

George B. was shot primarily on location in Chico, CA, with a day of work in Reno. The filmmakers had a decent amount of prep time to scout their locations and perform film stock tests with a still camera, but they did endure some arduous moments after shooting began. "On the first day, we had to do 8 5/8 pages of the script, in a public restroom, in 100-degree weather," Lea recalls with a grimace. "But the actors were total pros, and once we got started everything went very smoothly."

"Most of our crew was made up of interns from Chico State College, and at that point most of them didn't even know what a C-stand was," Kennan says. "One of them came up to me at the end of this 12- or 13-hour day and said, 'So, are these the hours you guys always work?' I just replied, 'Get used to it!' As it turned out, the interns were all really enthusiastic and tried very hard to do a good job, which made up for their lack of technical knowledge. They were basically learning as we went along, but by the end of the shoot, they were ready to go work on just about any production."

The cinematographer says that his toughest lighting challenge was a scene in which George and Angela have an encounter within a covered bridge. "There was no place to hide lights in there, and I was using a really wide 24mm lens," he says. "The scene was staged a bit like a cat-and-mouse game, with the actors moving back and forth, and I wound up having to re-position all of the lights to keep them out of the frame. I also didn't want to lose the great natural look of the covered bridge, so I had to be careful not to overlight or underlight it."

All of the extra work paid off, and the film was well-received at Sundance. Of his first trip to the event, Kennan says, "It's really great that someone has put together a festival where first-time filmmakers can have their films screened for people who matter in the industry."

Summing up his own feelings about the Sundance experience, Lea (who is currently writing another screenplay while serving as an assistant editor on the sitcom *Ink*), concludes, "It was a good year for movies and it was very exciting to be there. *George B.* is not a typical, predictable formula film, but the audience really seemed to understand what we were going for, and that was very gratifying."

— S. Pizzello

The Apartment (France)
Director: Gilles Mimouni
Cinematographer:
Thierry Arbogast, AFC

When plans for a film intended to be his directorial debut fell apart a few years back, Gilles Mimouni was advised to develop a simple, *pret-a-tourner* (ready-to-shoot) project. Although the French native tried to do just that, he instead found himself laboring for two years on an intricately plotted script which spun a tale of obsession, misrepresentation and deception. The end result is Mimouni's startlingly funny, sophisticated and suspenseful debut, *The Apartment* (*L'Appartement*), which was photographed by fellow countryman Thierry Arbogast, AFC, whose credits include *Mina Tannenbaum*, *La Femme Nikita*, *Ridicule* [see *AC* Dec. '96] and director Luc Besson's upcoming sci-fi thriller *The Fifth Element* (to be covered in *AC*'s May issue.)

At the center of the film's many interlocking circles is Max (Vincent Cassel), an amiable if slightly disheveled young businessman who has just gotten engaged. Prior to a flight to Japan, Max gratefully takes some Valium from his fiancee at a goodbye lunch, and then happens to overhear the agitated voice of an old flame, albeit through a wall, speaking on a pay phone. Or does he?

The woman manages to leave the restaurant before Max can catch her, but he is so riled up by the notion that his exquisite ex, Lisa (Monica Bellucci), is in trouble and possibly available that he sneaks back to Paris to pursue her after his fiancee drops him off at the airport. Memories

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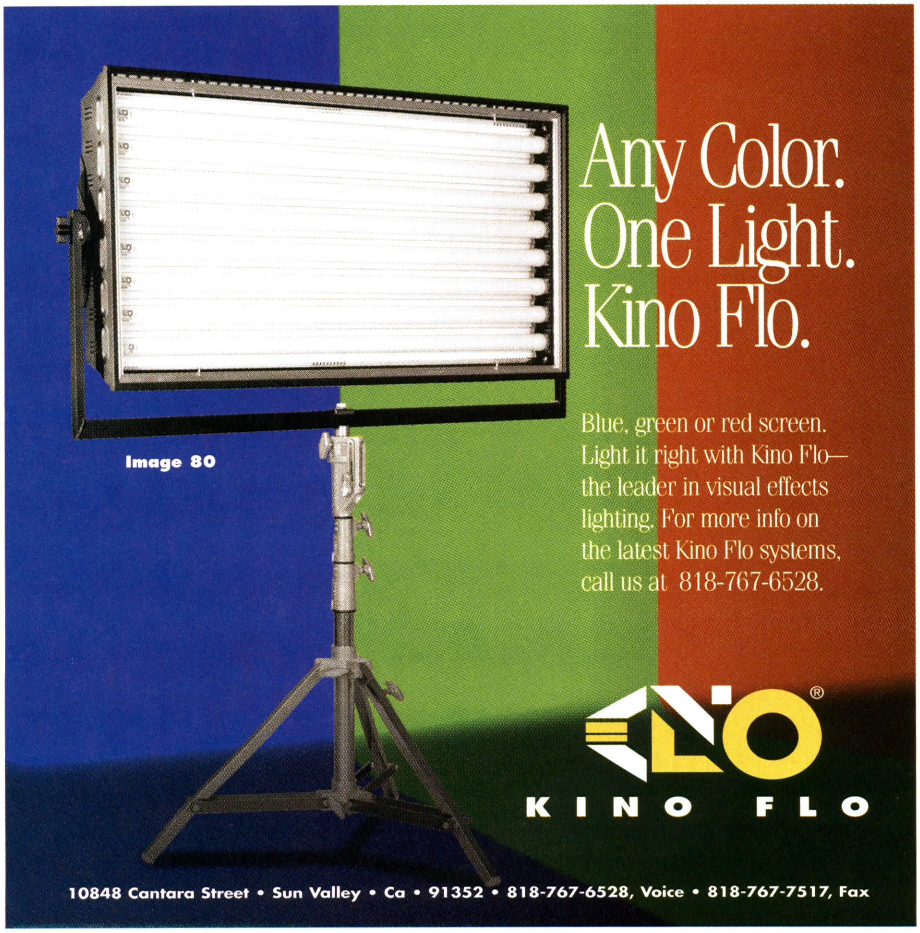

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come flooding back as Max embarks on a Hitchcockian odyssey to find the woman he truly loves.

"Time is the main theme of my movie," explains Mimouni. "What interests me is the weight of the past, and of memories. *The Apartment* is the story of a guy who is obsessed with and bewitched by the memory of a girl he loved."

As he attempts to track down the elusive Lisa, our hero winds up being pursued by a suitor of his own, Alice. A former wallflower who once spied upon Max and Lisa from afar with great interest, Alice goes so far as to befriend his erstwhile lover and eventually pose as her. Once the story unfolds from Max's perspective, the audience is treated to an amazingly different reverse-angle replay of the same events from the crazed Alice's calculating point of view. Consequently, a number of scenes in the second half of the film are slightly altered setups from previous sequences.

"The story is built in symmetry," says Mimouni. "In fact, I thought it could be interesting to put the present and past [in direct contrast]." He adds that neither version is supposed to be accepted as gospel. "I think that's the way the memory works. You don't realize how you are living in the present until you can think about it [later]. I think we see a very little part of reality, and we imagine the rest. Memory really becomes like a dream, and we project our imaginations. That's why when two people recall the same memories 10 years afterwards, their recollections are very different. Because they are really creating events almost entirely from scratch."

Explaining how he constructed Vincent's viewpoint, Mimouni offers, "I thought that maybe it was a dream that he'd had. Perhaps he imagined everything. I sort of suggest this a little in the beginning, when he takes the pills for the plane. But it's like someone traveling in his memories, so I wanted that dreamlike look. I really wanted to make a movie in colors, and I tried to use all of the [plot] tools you find in fairytales."

To achieve this concept visually, Mimouni fostered the collaboration between production designer Phillipe Chiffre, costumer Laurence Heller and Arbogast.

Mimouni had met the cameraman while attending the prestigious French film school IDHEC. "I knew that he was very gifted," the director attests. "I always liked the idea that we would work together."

Together, they sought to visually "make the difference between the past and present" in *The Apartment*. They achieved this with very stylized photography, going so far as to eliminate green from the palette entirely. The duo also sought to create the look of contrasty black-and-white through careful control of primary colors. To ensure that the footage would not be overly contrasty, the filmmakers pre-flashed it in blue, and utilized six different Kodak stocks, both new and old, in accordance with Arbogast's general practice of mixing several stocks on a single project.

Due to these stylistic demands, the production shot all of its interiors in a studio located in the suburbs of Madrid. The facility proved to be more affordable than any Parisian studio. "It was nice," says Mimouni. "There was a kind of intimacy between the crew and actors."

At least, that's how he remembers it. — M. Ferraro

The Last Time I Committed Suicide (U.S.)
Director: Stephen Kay
Cinematographer: Bobby Bukowski

Cited by beat author Jack Kerouac as an inspirational muse, Neil Cassady came to define the restlessness and wanderlust of an entire generation as the "Dean Moriarty" character in Kerouac's seminal novel *On the Road*. *The Last Time I Committed Suicide* examines Cassady's formative years, using an eight-page letter he penned to Kerouac as a jumping-off point. The result is an enlightening study of the adventurous inner impulses that many feel

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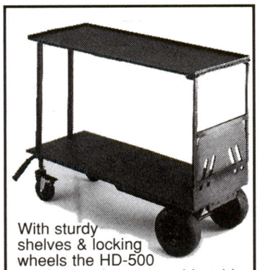
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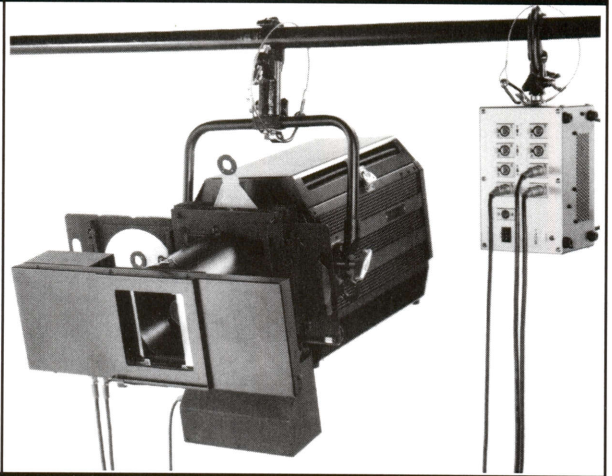

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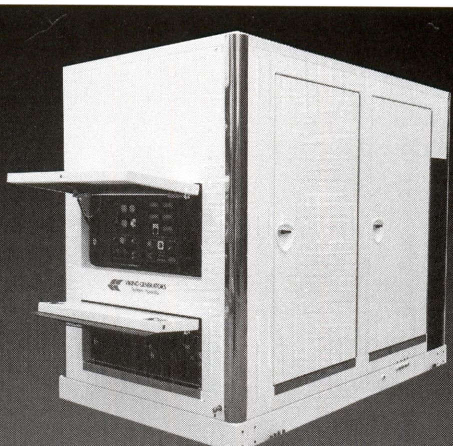

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but few indulge.

Directed with assurance by newcomer Stephen Kay and beautifully photographed by cinematographer Bobby Bukowski (*Dogfight, Search and Destroy, The Tie That Binds*), the film profiles a hyperkinetic character who, though intelligent and sensitive, is also susceptible to spontaneous pleasures. Torn between his long-held dream of a "normal" life and his more natural inclination towards perpetual motion, Cassady (Thomas Jane) discovers his true nature by exploring his relationships with several key people: Joan (Claire Forlani), a lovely but depressive woman who represents a chance at home and hearth; Harry (Keanu Reeves), a barroom buddy who provokes Neal's id; and Cherry Mary (Gretchen Mol), a tantalizingly sexy teenage girl who dangles the lure of carnal freedom.

"I'm a fan of both Beat poetry and the era that produced it," says director Kay, whose previous credits include numerous plays and film scripts, as well as the writing and direction of *Two Over Easy*, a 30-minute Showtime movie which earned three ACE Awards. "I'd wanted to do something about the Beats for years, and then I came across this letter that Neal Cassady had written to Kerouac. It sort of encapsulated where these guys were coming from philosophically, and I fell in love with it. The letter expresses a desire for 'normalcy,' but eventually Cassady realizes that it's not his dream, but someone else's. He understands that he's never going to have the picket fence and the family, no matter how hard he tries."

Rather than tackling a broad film about the Beat movement, Kay decided instead to create an intimate character piece about Cassady. Toward that end, he hired Bukowski, a director of photography who excels at using subtle lighting schemes to add a cinematic subtext. "Bobby shoots scenes for content," Kay says. "He knows what the scene's about, and how to get at the important emotional moments."

To convey Cassady's manic energy most effectively, Bukowski lent the film a free-flowing camera style that meshed perfectly with the picture's jazzy soundtrack and mood. "The story is about a person who was a poet and a writer, so Stephen's goal was to create a visual poem," Bukowski relates. "Neal's emotions dictated the camera style, so we tried to shoot each scene subjectively. If he was frantic, we would shoot handheld and messy. If he was in love, we'd go for something more studied and colorful."

As Kay notes, "Since the story is based upon a letter, it reflects Neal's memory of events, which allowed us to take certain artistic liberties in terms of the visual style. For example, when Joan is in the hospital after her suicide attempt, Neal recalls that the room was completely white, with the only color provided by her red lips. So for that scene, we went for a really dreamlike, white-on-white palette."

In regard to the striking hospital setup, Bukowski adds, "Neal is basically walking out of her life, so in the last shot of that scene, I wanted to make him blur out as he leaves her room and goes down the hallway. We shot that with a long lens, and pulled focus in the opposite direction as he headed away from camera."

The film was shot in just 27 days, on a fairly modest $4 million budget. Bukowski's lighting package was therefore fairly straightforward; he found himself relying primarily upon the use of simple tools such as 1K Par cans, 4K HMIs, tungsten lights on dimmers, Chinese lanterns and Kino Flos. Because he and Kay had planned a fairly contrasty lighting scheme, the cinematographer worked closely with production designer Amy Ancona to ensure that most of the film's walls would remain a bit darker than flesh tones, allowing the actors to reflect more light than the backgrounds. This technique is best illustrated in the picture's many bar scenes, which benefit from a moody, sourcey lighting strategy. "We were able to build most of the sets, which was great from my point of view because it allowed me to put lights wherever I wanted to,"

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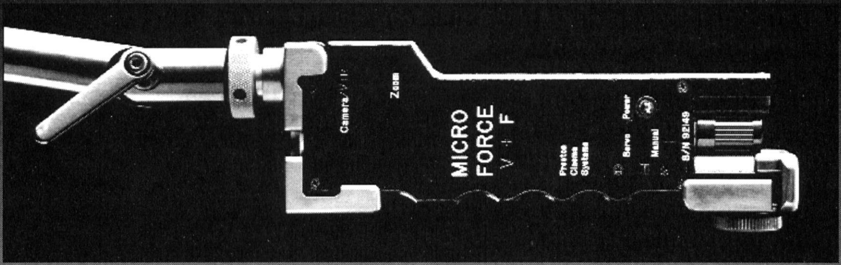

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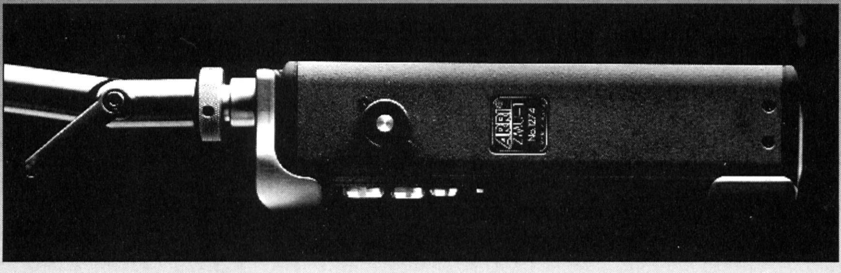

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Bukowski submits. "The bars were supposed to be really dingy, so I did something that I rarely do, adding a bit of smoke to enhance that feeling. The smoke allowed me to use Par lights to create some bright shafts that would silhouette the characters. For daylight scenes in the bars I used 4K HMIs corrected back with half CTO to create big shafts of sunlight coming through the windows. I also used bounce lighting off various surfaces, such as the pool tables. I find that bounce light is an excellent eyelight; in my experience, if actors are given the choice of looking up or down, they'll look down nine times out of 10."

Later in the film, when Cassady reunites with Joan, and gets a brief taste of "happily ever after" before Fate intervenes, the filmmakers sought to create an ambience of comfort and security. "Those scenes with Joan at the house are really the only examples of conservative photography in the movie," says Kay. "We used warm tones and traditional coverage to convey a sense of the staid, simple life."

Bukowski shot the entire film on Kodak's 5293 stock, and executed a good deal of handheld footage with his primary camera, an Arri BL-4. His burden was lightened by a series of bungee-cord rigs devised by his grips. "For one sequence involving a football game, the grips hung the camera from a bungee cord attached to the bottom of a two-by-four," he reveals. "The camera would hang from this central point, and the grips could walk or run around with me as I operated the shot. It gave me a lot of freedom, since I didn't have to worry about carrying the full load of the camera by myself. This film really did involve a lot of jazzy improvisation, which allowed me to interpret each scene in the appropriate way."

In the wake of *Suicide*'s successful Sundance run, both Kay and Bukowski are in the planning stages of their next projects. Kay is preparing for the June start date of a feature titled *Instructions for the Drowning,* while Bukowski says that he soon hopes to take a stab at directing. — S. Pizzello

Rhinoceros Hunting in Budapest (Great Britain)
Director:
Michael Haussman
Cinematographer:
Nicola Pecorini

The first shot of *Rhinoceros Hunting in Budapest* is the visual equivalent of a "Fasten Your Seatbelt" sign: a man slowly surfaces from the depths of a golden, shimmering lake, stands, and then collects his floating, floral-patterned suitcase before departing the frame.

This attention-grabbing sequence launches a semi-surreal love story/road movie which follows a seemingly stoic Young Man (*Flirting with Disaster*'s Glenn Fitzgerald) as he attempts to track down his estranged girlfriend. The voyage takes the protagonist on a progressively darker journey through Colorado, Paris and Budapest; after arriving in Paris, the Young Man meets an angelic, mystifying woman-child named Teen (Karine Adrover) who decides to help him, even though it develops that she herself may have feelings for him. As the layers of this moody, elliptical piece peel away, the true nature of the tale and the main character are revealed through mesmerizing camera moves and a well-orchestrated lighting scheme.

The film is the brainchild of writer-director Michael Haussman, an award-winning commercial and music-video director whose credits include Madonna's "Take a Bow." The picture's stunning photography was provided by cinematographer Nicola Pecorini. "I had this idea that I wanted the colors to slowly change," says Haussman. "Colorado was supposed to be airy, and slightly golden. By the time we got to Paris, [the palette] was going to be more tobacco-stained, with a carnival-type feel. In Budapest, the shadings were supposed to be darker, with a *Third Man*, noir-type feel." Pecorini says that he achieved this "goulash" of looks with the help of various Lee filters and gels.

Haussman and Pecorini met several years ago on the set of a Paula Abdul video directed by

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the former. Pecorini served as the Steadicam operator, a position in which he has excelled for some 16 years. His experience includes work with such ASC luminaries as Robert Richardson, Owen Roizman, and fellow Italian Vittorio Storaro (for whom he headed up the second unit on *Little Buddha*). There was an instant rapport and mutual respect between Haussman and Pecorini, so the director extended an invitation to shoot *Rhinoceros Hunting* when it became a "go" project. The picture is the feature debut of both filmmakers.

Pecorini was enthusiastic about the material, but he had some concerns which he expressed to Haussman before committing to the project. "In his commercial career, Mike has always been known for a highly stylized, polished look, and that is exactly what I don't supply," the cinematographer says, laughing. "I told him I can be polished, but not very sophisticated. I like things to look real. But he said, 'That's exactly what I want for this movie.'"

Integral to the maintenance of that look was Pecorini's lens selection, which he says was influenced by "another of my teachers, Roman Polanski." The cameraman had operated for the Polish director on both *Death and the Maiden* and *Bitter Moon*, and learned much from the experiences. As Pecorini recounts, "Roman once said, 'The world is a wide-angle lens.' Heeding that wisdom, the cinematographer shot approximately 80 percent of *Rhinoceros Hunting* with 24mm and 18mm lenses.

Framing in standard format, Pecorini eschewed zoom lenses, opting instead to employ Zeiss 2:1 primes on an Arri BL-4. The camera was provided free of charge by the Roman house Technovision, out of respect for the relationship Pecorini had established there while working with Storaro.

"This movie was primarily shot at a stop of f2.8," says Pecorini. "The 2:1 lenses were the best choice, because once I saw the locations, especially Teen's apartment, I needed a lens that was reliable in strong backlight. Unless you can find a really great set of Cookes, which is hard these days, the Zeiss is the right choice."

Describing the Kodak 5293 stock used throughout the shoot, the cinematographer offers, "The blacks are unbeatable. I knew the ideal way to obtain the look Michael wanted would have been to use ENR processing, but that costs a lot of money, and was completely out of the question." The film itself was processed at LTC Lab in Paris, and was overseen by timer Patrick Crucy, who earned lavish praise from Pecorini.

The cameraman also complements key grip Giampaolo Bagala and gaffer Daniela Caffola, especially since he made "half the movie with two grips and two electricians." With its limited budget, the production could not afford more support until it reached Budapest.

The cinematographer says he was aided by the use of a dimmable light system, a method popularized by Storaro. "I appreciate the modular system of the dimmer very much," says Pecorini. "When you bring up the light, you can feel the tension coming up; it helps the actors."

Pecorini says the lighting crew relied primarily upon Tornadoes — mini-Brutes made of Par 32s "that you can hide everywhere." The units were included in a package manufactured by Pitto Caffola of Iride in Rome. Not only was Pitto the father of Pecorini's gaffer, but he also served as Storaro's gaffer for 20 years before retiring. This family affair extended even further, in an unlikely way. Pecorini reveals with a chuckle, "Our lighting truck was actually my mother's mini-van, packed up to the roof."

Now that he has finished his first outing as a cinematographer, Pecorini has no plans to look back. "I worked as a camera operator for 16 years, and you kept learning and learning," he says. "But you get to the point where you need to release the notions that you've already absorbed, and this film was a great occasion for me to do that." — M. Ferraro ◆

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The Desktop Cinematographer

AC examines new software programs that can aid cinematographers in their visual pursuits.

by Jay Holben

In the quasi-organized chaos of film production, it's always a blessing to discover a new tool or system that will simplify the quandaries of moviemaking.

These days, of course, the industry and the world at large are immersed in a technological revolution. Computers are as much a part of our lives as cars, and their power and potential grow exponentially every day. Many facets of the industry have already embraced the computer as an indispensable tool. Production staffs have integrated their desktops with programs such as Movie Magic and Movie Magic Scheduler, which have revolutionized the budgeting process. On the creative side, screenwriters have long made use of the powerful word-processing capabilities of even the simplest computer, and pioneering programs such as Script Perfection Enterprises' Script Thing make their jobs even easier. Of course, it seems almost unnecessary to point out the impact that computers have had upon motion picture special effects.

As the cinematographer's trade moves further and further into the digital realm, it is more important than ever for directors of photography to keep pace with technological advances. New tools that are viewed as being improbable one day can be developed — and rendered obsolete — in a flash. But computer technology can also give directors of photography great freedom from the tedious details of the business, allowing them to experiment quickly with dozens of different options and explore new worlds without costing the production a bundle. The power of the desktop is growing, and if embraced, it can be an extraordinary addition to any cinematographer's tool bag.

Given this reality, I was surprised to find, despite a fairly exhaustive search of more than 150 software developers working for and within the entertainment industry, that there are virtually no programs specifically designed for directors of photography. However, there are many software programs with applications that can aid the professional cinematographer. What follows is a survey of some of the most helpful tools.

SunWhere

Topping off this list, merely because of its direct application to the cinematographer's work, is SunWhere, a Clear Day Software program designed by an advertising photographer. Company founder Cliff Hancuff began working on the program after being jilted by Mother Nature one late afternoon while toiling on an architectural shoot. After waiting several hours for the sun to shine on a particular facade of a structure, Hancuff was thwarted when the sun set just before its light painted the surface.

Frustrated and dejected, Hancuff set out to design a tool to make sure such a thing would never happen again. Five years later, his team at Clear Day unveiled SunWhere, a program that merely requires a date and a place to tell you precisely where the sun will be at any given moment. Whereas the United States Census Bureau tracks the population of America by 43,000 cities, SunWhere boasts a database of over 153,000 cities and 83,000 other geographic features, including arches, bays, beaches, capes, glaciers, islands, parks, forests and reservations. There is no need to research longitude, latitude, time zones, Daylight Savings Time or even compass declination for a desired location; it is all done for you at the click of a mouse. Also included within the help files is a detailed tutorial on the proper use of a compass and the many hundreds of factors which can bias readings.

Because Clear Day does not want anyone operating with outdated software, SunWhere, like a calendar, is available in yearly installments only: September 1 to December 31 (15 months). Although it's necessary to purchase individual databases for four different regions within the U.S. (central, east, west and south), as well as a new main program for each year, users can always be certain that they have the latest version. (The system's worldwide database, expected sometime around the

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middle of 1997, will cover 3.1 million locations around the globe.) Each new yearly installment will include any new features and database additions as they are offered.

SunWhere is currently only available for the PC, but Macintosh versions are expected to be ready by April 1997. Also scheduled for release early this year is MoonWhere, which will apply the same applications to the moon's position and phase.

Snappy Digital Snapshot

Next on the list is a rather unexpected device from Play Incorporated, a privately held, self-funded corporation in Rancho Cordova, CA that has been diligently working to create a television studio for the PC. Play's Trinity Video Production System, the result of seven years of intensive research and development, operates within the Windows environment to allow users to perform multi-camera productions, video editing, digital video effects, green-screen keying, audio mixing, graphical overlays and image compositing — all at broadcast quality.

Snappy

- * Exclusive HD-1500 custom chip – 1500x1125x16.8 million colors (24-bits)
- * Custom digital phase lock loop for flawless color reproduction
- * Unique 8x oversampling
- * On-board memory freezes 1/60 second from video
- * 35ns double-resolution pixels for sharp, broadcast-quality images
- * Efficient power management runs Snappy from 9V battery
- * Video-out connector for preview
- * Unique software Time-Base Corrector stabilizes image for increased detail
- * Automatic gain control
- * Process in YUV 4:2:2 (8:2:2 in high-definition mode)
- * Adaptable comb filtering
- * AI-based signal analysis
- * Third-Order polynomial interpolation
- * Supports BMP, PCX, TIFF, PNG, JPEG

PC: 80386 Windows (3.1, 95, NT 3.51 or better)
8MB RAM, 8MB Hard Drive

Play Incorporated
2890 Kilgore Road
Rancho Cordova, CA 95670-6133
(800) 306-PLAY, (916) 851-0800;
(916) 851-0801 Fax; Internet www.play.com

The key to this new technology was the creation of the HD-1500 image-capture chip, which is capable of an amazing 1500 x 1125 pixels and 16.8 million colors of resolution — the highest of any image capture chip yet created. This chip led the Play team to a pit stop on their way to Trinity: the creation of the Snappy Digital Snapshot. Snappy uses the HD-1500 to capture images through a single RCA cable from tape, disc, broadcast television, cable, camcorders, another computer, or any other source that can be fed down the line of an RCA cable. Taking this technology even further, Snappy is the first digital capture device to include more than just the active picture area of video. Snappy reads into the sync encoding to determine black-and-white pedestals and information about the specific colors within the image. Play calls this "software timebase correction," and they are the first to incorporate this information with a digital capture chip.

A cinematographer on location with Snappy, a camcorder and a laptop can digitize frames from each area and send the images across thousands of miles in an instant; there's no more waiting for one-hour processing or mail delivery. With e-mail and the Internet, someone across the globe can get the images less than 10 minutes after capture, import the images into an application like Adobe Photoshop, and send them back with any changes or notes within the space of a lunch hour.

The only step necessary to connect the Snappy is to plug it into your parallel port. Simple and small enough to fit into a shirt pocket, the Snappy offers many new possibilities for communicating ideas.

Adobe Photoshop

Adobe has long been the forerunner in image processing software, and a star of the company's product line is Photoshop. An extraordinarily powerful processing program with infinite capabilities, Photoshop allows directors of photography to view and alter digital images of their work.

Adobe Photoshop 4.0

- * Advanced color-correction tools
- * Cross-platform capability
- * Works with all major image formats including: BMP, JPEG, TIFF, GIF, TGA, PSX

PC: 80486 or better
16MB RAM, 25MB Hard Disk
CD-ROM Drive
Mac: 68020 or better; OS 7.0 or later
16MB of application RAM for 68020 - 68040
11MB of application RAM for Power Mac
at least 20MB RAM for virtual memory

Adobe Systems Incorporated
345 Park Avenue
San Jose, CA 95110-2704
(408) 536-6000; 408-537-6000 Fax

Aside from the multitude of processing "toys" that Photoshop offers (of which even a cursory examination is far beyond the scope of this article), a few basic applications can be of great use. Users can re-color-correct an image before tweaking it at the lab, or take images from location scouts and alter them to suits the production's needs before passing them on to the art department. Photoshop also makes it possible to very simply and quickly change the color of walls, add or subtract a wall, move a window, add or remove a door, change a floor covering, or make dozens of other alterations. In addition, the program enables one to communicate instantly with directors and production designers — not with pencil sketches or hand gestures, but with actual images from the real location. As in a telecine bay, Photoshop allows the user to adjust the gamma, luminance, black-level, RGB and YCM levels. Photoshop is also TWAIN compliant to allow clean importation of images from a scanner.

A precise and powerful tool, Photoshop provides a good sense of the capabilities of digital manipulation. Perhaps the only pitfall of the new Photoshop 4.0 is its sheer size. The program's seemingly limitless capabilities can be a bit overwhelming for first-time users, and the eccentricities of the advanced graphical interface are sometimes confusing and frustrating. But despite these small drawbacks, Photoshop remains an invaluable tool.

Virtual Light Lab

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*12.5-100mm f2.0 Vario-Switar MC "Bay or C".	$4,137.00
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Virtual Light Lab

- Easy-to-use
- Alterations appear immediately in real time
- Easily change from GAM to Rosco to Lee.
- Quickly communicate an idea with a production designer or director
- Instantaneous learning of program, very intuitive design

Mac: OS 7 or better, or System 6 with 32-bit QuickDraw and 4MB of memory
PC: To be released.

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New York, NY 10019,
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gram that crosses the boundaries of theatrical lighting into cinematography. Once it's booted up, the program begins with a single light and a sphere on an otherwise empty stage. From here, a user can move the light to any of 32 separate locations, or add up to 32 separate instruments. Hanging positions include the front of a house, a stage house and side booms. The sphere can be changed to represent a full human figure, a close-up human figure (the most useful) or a series of geometric shapes.

Placing more lights is a matter of simply dragging and dropping an instrument from the "crate" to a lighting position. Lamps can be adjusted for intensity or color, and users may also make selections from the major swatch books: GAM, Lee or Rosco. Light Lab will also single out one source instrument in a complex cue to show its contribution to the overall lighting scheme, or take a "snapshot" that can be pasted into other applications. Background choices include a black void, any color desired, or an imported image for the cyc.

Beyond these functions, however, the program is very limited in its abilities. The figures are all an inalterable pasty white, and a user cannot choose what instrument is used, or the quality or size of the light. In spite of these shortcomings, Light Lab is still a valuable tool not only for teaching, but for experimenting with various styles of lighting and color combinations. It is currently available only for Macintosh, but a Windows version is expected to be ready by March of 1997.

MicroLux 2000

Combining the applications of a CAD program with a large database of theatrical lighting instruments, LuxArt Conception's MicroLux 2000 makes it simple to hang, circuit and focus lighting instruments; create locations; place trusses; create an instrument schedule; calculate loads for trusses; control automated lights; cue the show and finally output it all to a lighting console via DMX.

This multi-layered software literally travels from the drafting table to opening night. The program offers the flexibility of three-dimensional plotting to design the lighting for any location.

MicroLux 2000

- 3-D spot library
- 3-D drawing objects (extrusion, cone, pyramid, mesh, etc.)
- 3-D beam representation
- 1mm or 1/100" precision
- Snap-on trusses and focus points
- Support cosinus and peak distribution for intensities and beam angles
- Support asymmetric beams such as Par beams, allows for 90-degree rotation.

PC: 80386 or better DOS 3.31 or higher 6MB RAM, 8MB Hard Disk

LuxArt Conception Inc.
763 Des Merles
Longueuil, Quebec, Canada, J4G 2K8,
(800) 567-0771, (514) 990-0771; (514) 990-0122 Fax; E-Mail microlux@luxart.qc.ca;
Internet http://www.luxart.qc.ca/

The vast database of instruments is primarily theatrical-based, but it is open-ended enough to import either personal information or updated databases from the company's web site. In plotting, MicroLux can "turn on" selected instruments to show a representation of beam and field angles along the light path to the designated focus location. A click of the mouse allows the user to quickly change focus to another position.

The program also has preview cues for moving light systems, such as Vari-Lite, and allows one to adjust their animation. Every alteration instantly updates the running lamp order, dimmer and channel schedule, each of which is separately printable. The lighting plot can be further detailed by designating the various factors for each instrument: color, templates, circuit, dimmer, iris and pretty much any other compatible accessory. MicroLux additionally offers photometric data in the form of footcandles or lux at any focus location, taking into account throw, focus and color. With the ability to easily create a 3-D plot and print out schematics and orders, MicroLux offers the priceless potential for saving time.

Light Shop

Crescit Software Inc.'s Light Shop is a photometric analysis program for Windows which offers an extensive database of hundreds of instruments and dozens of manufacturers, including Arri, Altman, Cinemills, Colortran, Dedotec, ETC, Kino Flo, Lowel, LTM, Mole-Richardson, Strand, Wildfire, Vari-Lite and Xenotech, among many others.

Light Shop allows effortless calculation of photometric data for a specific instrument. Once an instrument has been selected, the program allows the user to set height and floor distance (X and Y axes) and specify the height of a target object. The next steps are to select the focus (minimum, medium or maximum), change the lamp to suit the specific needs for a setup, and add color from the swatchbooks of Rosco, GAM, Lee or CMC — after which Light Shop will calculate beam angle, field angle, footcandles (or lux), color transmission and incident angle. Everything is easily changed to

Light Shop 3.1a

- * Database of dozens of manufacturers and hundreds of instruments
- * Specify colors, focus, templates, and lamp
- * Quickly review several different combinations
- * Print out templates for plotting
- * Calculate in foot-candle or lux

PC: 80386 SX
Windows 3.1 or better
4 MB RAM, 35-40MB Hard Disk

Crescit Software Inc.
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quickly view multiple options for a given scenario.

Light Shop's instrument categories include ellipsoidals, Fresnels, plano-convex spots, Pars, beam projectors, scoops/softlights, strips, cycs, follow spots, MR16 lamps, moving fixtures or a user-assigned library. The program offers three different views: plan view, cross-section view and template view. The plan and cross-section views provide a scaled representation of the instrument location, target and light beam from overhead or the side, respectively. The template view allows the user to see and print out a beam-spread template for use in manual plot construction.

Two other applications, both accessible through Light Shop or on their own, are the "Key Light Calculator" and "Pattern Database." The Calculator simply allows users to input an ASA and f-stop and receive a footcandle intensity. The Database is an extensive image library of template patterns for Rosco or GAM, organized by categories.

A wonderful supplemental tool, Light Shop also easily interfaces with Soft Plot, Crescuit's theatrical lighting design software. Through Rosco/Canada, plans exist to develop a program exclusively for motion picture use.

Virtus WalkThrough Pro

Even for cinematographers using architectural plans and scale models, there are times when painful little surprises occur during the first moments on a set — such as the discovery of that little something that just wasn't what was imagined. With Virtus WalkThrough Pro, directors of photography can explore the ability to walk onto the set before it is built.

The development of the program is an interesting story. After playing the 3-D computer game *The Colony*, a team of motion picture set designers — who were having a difficult time visualizing several sets that were to be constructed underwater — called upon the game's creator to build their sets in the computer so that they could move interactively through them. This process showed the director and designers that one complete set could be eliminated, saving the production almost $2 million.

Virtus WalkThrough Pro 2.6

- Robust drawing tools
- 3-D visualization
- Walk and explore
- Textures and realism
- Hundreds of library items
- Export options
- Intuitive and friendly environment

PC: 80386 or better Windows (3.1 or later)
VGA or Super VGA display
8MB RAM

Mac: Powerbook, Centris, Quarda or Power
Mac OS 6.0.5 or better
8MB RAM

Virtus Corporation
114 MacKenan Dr., Ste. 100
Cary, NC 27511
(919) 467-9700; Internet www.virtus.com

The film in question was James Cameron's *The Abyss*, and the software became known as Virtus WalkThrough Pro. Virtus' intuitive and friendly design allows users to quickly create three-dimensional locations and then move interactively within them on any axis; it's possible to execute pans, tilts, cranes, dollies and even 360-degree lens rotations. Within the "Walk" window, one can select a lens size in approximate 35mm format (plans for 16mm, Super 16, Super 35 and 70mm exist for future versions), from 15mm to 500mm. The moves are recordable and can be exported into Animator Pro (FLC) or Video for Windows (AVI) files. "Snapshots" can be made for TIFF, JPEG or BMP files, or the entire model can be exported in industry standard DXF.

The sets can be detailed or simplified, although the more detailed they are, the slower the 3-D movement will be. Furniture and appliances can be added from a supplied 3-D clip-art-type library, and textures can be added to surfaces. The program supports very basic light sources, but their simple representations offer little information. A drop-down menu allows the selection of aspect ratio (1.33:1, 1.66:1, 1.85:1) to matte the "Walk" view. The format menu also includes 2.35:1 anamorphic, but the program does not calculate for lens differentiation.

Virtus also supplies a stand-alone program, Virtus Player, to send copies of created environments to people who don't have WalkThrough Pro. With Virtus Player, another party can open, view and move through the virtual sets on any platform.

Virtus has established a fairly firm hold with directors in the industry. In addition to James Cameron, users have included Sydney Pollack (who took advantage of the software to design offices sets for *The Firm*) and Brian DePalma (who used Virtus to generate storyboards for *Mission: Impossible*). The power of WalkThrough Pro now allows filmmakers to experiment with complex camera moves within planned locations before paying a rental house day rates.

Lightscape

The Lightscape Visualization System is staggering in its powerful ability to take 3-D previsualization to a new level. Using the most advanced algorithms ever designed for this type of software, the program allows users to see the full effects of virtual lighting. Lightscape transcends the single-surface limitations of most CAD programs by incorporating ray tracing, radiosity, and photometry

Lightscape

- Physically based materials and properties
- Interactive 3-D photometric web editor
- Natural light controlled by supplying time, date, place and degree of cloud cover
- Radiosity renderer calculates direct and diffuse lighting
- Ray-tracing abilities
- 24-bit or 48-bit output to any resolution
- 360 degree panoramic image generation for QuickTime VR or similar application
- Supports GIF, TIFF, TGA, EPS, BMP, JPEG, PNG, RGB or RGBA images

PC: Intel Pentium processor
Windows (95, NT 3.51 or better)
Super VGA
32MB RAM, 500 MB Hard Disk

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1054 S. DeAnza Blvd., Ste. 200
San Jose, CA 95129-9961
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Internet www.lightscape.com

to create the secondary sources: bounce light, light filtered through translucent or transparent surfaces, light reflection and absorption, and shadows cast by opaque objects.

The final product is a photorealistic, three-dimensional image that users can move within interactively. Lightscape interprets luminaire characteristics from real-world IES (Illumination Engineering Society) data, available directly from the manufacturer, to create factual renderings. Applying the same concept to the physical structure, Lightscape uses real-world definitions for surface textures, allowing them to interact properly with the lighting.

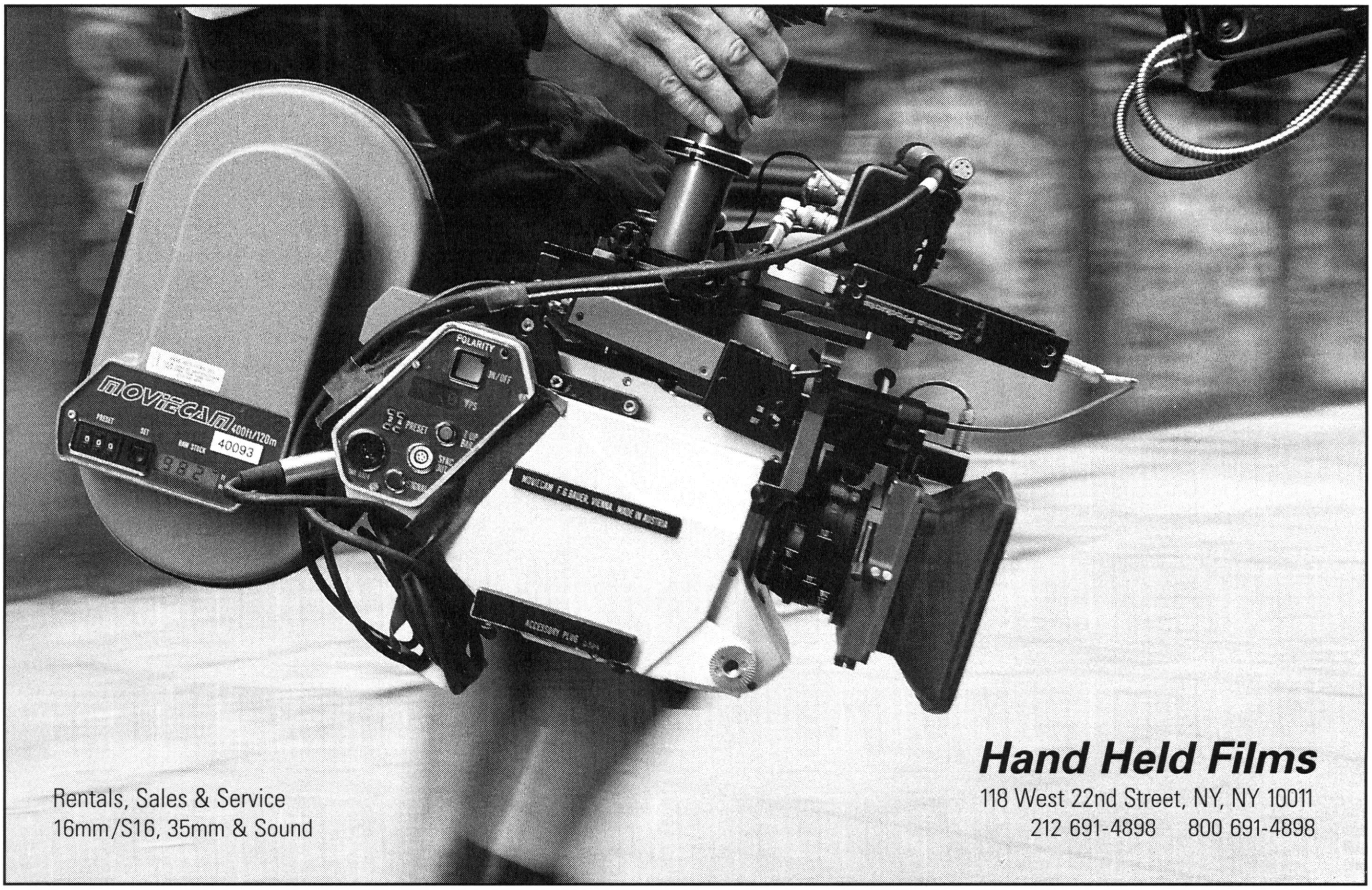
The program also offers the capability to use a virtual light meter to read footcandle intensities at any point within the model. With Lightscape, it is possible to create a model based on a set or practical location, and experiment with literally hundreds of possible "looks" in the lighting concept without so much as a single stinger. Each time a variable is altered (in relation to either a luminaire or a physical structure), Lightscape can quickly adjust the other parameters to suit the new choice. Using progressive refinement radiosity, the program renders the new parameters much like a fractal: initial adjustments are made in large "chunks," after which the details are refined almost infinitely. The user controls how long the processing continues, but the program's powerful engine can usually complete the largest portion of the work after just a few calculations. Lightscape's ray tracing abilities create breathtaking specular highlights to further detail models.

Perhaps Lightscape's only foible is that it is not a modeling program; a separate modeling program is required to create an environment before one can elicit the software's prodigious capabilities. Although Lightscape imports from any .DXF model, a sibling-like interface can be obtained from 3-D Studio Max, which has its own custom import filter within Lightscape.

3-D Studio Max

Autodesk (creators of AutoCAD, the industry standard for computer design) has long been on the leading edge of computer-aided design programs. One of the company's divisions, Kinetix, takes the concept of simple modeling a quantum leap further with 3-D Studio Max. Like Photoshop, this program is a 3-D modeling and rendering animation program of immense proportions, and even a cursory examination of its full potential is beyond the scope of this article.

3-D Studio Max's strength, in relation to the director of photography's work, is its ability to model a scale location for export into Lightscape. The program is by no means elementary. It is not possible to quickly learn all of the software's ins and outs within a few hours. It would likely take a new user several months to fully comprehend the strength of this program. However, if one invests



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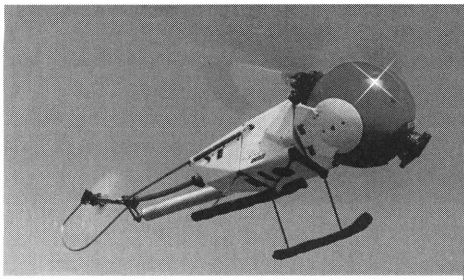

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Graphics card supporting 800x600x256
CD-ROM

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642 Harrison Street
San Francisco, CA 94107
(800) 879-4233, (415) 547-2000; 415-547-2222 Fax; Internat www.ktx.com

the time to learn the software's abilities, it is an extraordinary compliment to Lightscape. 3-D Studio Max and Lightscape can provide a director of photography with an image of exactly what a set will look like when completed — an invaluable tool for communicating with directors, producers and designers.

But 3-D Studio Max also goes well beyond this valuable function. For example, a director or director of photography working on a commercial account can even use Max to present a client with a small-screen movie of what their ad may look like.

Animating rendered objects is child's play with Max. In the first tutorial, the new Max student is shown — in 15 minutes — how to animates his or her name over a snowy landscape with gently falling flakes. This program really belongs on the shelf of a visual effects artist or a computer animator, but in combination with Lightscape it will amaze any director of photography with its ability to save time on location — a feat that will impress clients and producers as well. ◆

Programs for PC were tested on:
Packard Bell Pentium 75

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Super VGA Monitor
2x CD-ROM

Programs for Macintosh were tested on:

Power Macintosh Power PC 7100/66
OS 7.1.2
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The Maltese Falcon: A Tale Thrice Filmed

Dashiell Hammett's classic noir story, committed to the big screen on three separate occasions, boasts an intriguing cinematic legacy.

by George Turner

On approximately this spot Miles Archer, partner of Sam Spade, was done in by Brigid O'Shaughnessy.

The above words appear, without further elucidation, on a bronze plaque set in the alley-side of a building in San Francisco at the corner of Burritt and Bush, above the Stockton Street Tunnel. The plaque does not explain that Archer, Spade and O'Shaughnessy are fictitious characters created 68 years ago by Dashiell Hammett, an ex-Pinkerton detective, when he lived across Bush St. from the dead-end alley. The names are so familiar to readers and moviegoers that no explanation is needed.

As detailed in Hammett's novel *The Maltese Falcon,* O'Shaughnessy shoots detective Archer and watches him crash through a fence and tumble toward Stockton St. The tale began as a five-part, 65,000-word serial starting in the September 1929 issue of *Black Mask* magazine. Hammett later polished it into his third novel. Jacob Wilk, head of the Warner Bros.-Vitaphone story department, bought the film rights from publisher Alfred Knopf for $8,500 on June 5, 1930. The studio got its money's worth by filming the property three times in 10 years without having to pay another dime.

In Hammett's story, Ruth Wonderly hires private detectives Sam Spade and Miles Archer to shadow Floyd Thursby. Both Archer and Thursby are murdered that night. Sam is suspected because he has been having an affair with his partner's wife, Iva. Wonderly, who admits that her real name is Brigid O'Shaughnessy, becomes romantically involved with Sam. Meanwhile, Spade is visited by Joel Cairo, who hires him to find a black statuette of a falcon. Sam is trailed by a young gunman, Wilmer Cook, henchman of the "Fat Man," Casper Gutman, who also seeks the falcon. Gutman tells Sam that the figurine is a treasure worth millions, and also hires him to find it.

A clue leads Spade to the just-arrived freighter *La Paloma,* but he finds the vessel to have erupted in flames. Later, the ship's captain, Jacobi, dying from bullet wounds, staggers into Sam's office carrying the falcon. O'Shaughnessy, Gutman, Cairo and Wilmer are waiting for Spade at his apartment. He tells them he will have the falcon there in the morning. He then learns that Wilmer killed both Thursby and Jacobi, and set the *La Paloma* afire. Spade demands that Wilmer be turned in as the "fall guy," and the others agree. Sam has his secretary, Effie Perine, bring the falcon. It proves to be a fake. Wilmer escapes, and Gutman and Cairo leave to resume the quest. Spade then accuses O'Shaughnessy of killing Archer in order to frame Thursby. The police arrive, reporting that Wilmer has killed Gutman and Cairo has told all. Spade, refusing to "play the sap" for Brigid, turns her in.

This yarn suited Darryl F. Zanuck, the hard-nosed executive in charge of production at Warners' West Coast Studios. Starting as a writer in 1924, Zanuck became studio manager in 1928, working with chief Jack L. Warner during the difficult transition from silent to talking pictures, and the advent of the Great Depression. He haunted the editing rooms, demanding tighter cutting to step up the pace of the pictures. "Many great products are ruined by

Sam Spade receives a pair of San Francisco's finest as late-night guests. **From left:** ***Ricardo Cortez (the brother of cameraman Stanley Cortez, ASC), J. Farrell MacDonald, Bebe Daniels and Robert Elliott in the first version of*** **The Maltese Falcon** ***(1931).***

Clockwise from above: ***Cortez as the screen's first Sam Spade, Dudley Digges as the original "Fat Man," Gutman; Dwight Frye as Wilmer, the youthful killer; Otto Matieson as the dandy but dangerous Joel Cairo.***

overfootage; many fair pictures are improved one hundred percent by clever and intelligent cutting," Zanuck stated. "Now Warner Brothers pictures are recognized for their tempo, speed, and direct continuity of thought and action."

The first version of *The Maltese Falcon* (1931) is a fast-paced Warner Bros. crime drama, a fit companion to that year's *Little Caesar, Public Enemy* and *Five Star Final.* It was announced variously as *Woman of the World, Dangerous Female* and *All Woman,* in keeping with its status as a star vehicle for the popular Bebe Daniels. One archive print is titled *Hard Dame,* and the film's TV title is *Dangerous Female.* There's a myth that the picture was a dismal failure because it deviated widely from the book and was miscast, alleged mistakes that were supposedly rectified only when John Huston's 1941 version with Humphrey Bogart finally got it right.

Balderdash!

It's true that the 1931 edition, which is 20 minutes shorter than the 1941 picture, skips over some scenes in the book. Conspicuously absent are Hammett's celebrated opening description of Spade rolling a cigarette, and most of the detective's violent encounters with Wilmer. In addition, Rhea, Gutman's dope-addicted daughter, is missing, and Archer's murder occurs in Chinatown (Twinkletoes Street on the backlot). There is no hint of the book's sexual relationship between the perfumed Cairo and Wilmer, but there is a suggestion that Gutman is "keeping" Wilmer (which is also manifest in Huston's later adaptation).

On the other hand, the earlier picture contains some elements of the book that are not in the Huston film, partly because the Production Code was considerably more lenient in 1931. There is no question, for example, that all of the women in the movie are Spade's lovers. He is introduced as a silhouette on his inner-office window, making love to an anonymous client whose legs alone are shown as she exits; Spade is then shown tidying up his couch cushions before admitting the next client. Later in the show, Effie makes no objection to his kissing her neck and putting his hand on her hip. Spade also makes love to Wonderly in his apartment as "For You" plays on the gramophone; when the music finishes, there is a long take of the player arm moving back and forth in the center groove. As in the novel, she stays the night with Spade. At dawn, he steals her keys, goes to her apartment and ransacks it while she sleeps. The professionalism of the search is intricately shown in a series of dissolving shots. Also depicted is the book's sequence in which Gutman accuses Wonderly of palming a $1,000 bill, and Spade forces her to undress to prove she doesn't have it. (At a strategic point, the disrobing continues offscreen.) As in the book, Gutman is killed by Wilmer.

The movie adds a pre-Code touch of its own when an irate Iva Archer, catching sight of Wonderly in Spade's apartment, screeches, "Who's that dame wearing my kimono?" Wonderly shucks off the garment and flings it away disgustedly. We also see glimpses of her stashing money in her stocking and chatting with Spade while bathing.

There is also, however, a strange new coda in which, following Wonderly's conviction, Spade visits her in prison to tell her he's now chief investigator for the District Attorney. She begins crying and tells him she really loved him. Conscience-stricken, he tells the matron to get Wonderly whatever she wants and charge it to the DA's office.

In truth, Ricardo Cortez (brother of renowned cinematographer Stanley Cortez, ASC) is physically closer to Hammett's detective than Bogart. According to Hammett, "Samuel Spade's jaw was long and bony, his chin a jutting v under the more flexible v of his mouth. His nostrils curved back to make another, smaller v. His yellow-grey eyes were horizontal. The v motif was picked up again by thickish brows rising outward from twin creases above a hooked nose, and his pale brown hair grew down — from high flat temples — in a point on his forehead. He looked rather pleasantly like a blond Satan." We learn later that Spade is tall, heavy-shouldered and bearlike. Although the tall, sharp-featured Cortez was not blond, yellow-eyed or bearlike, he passably resembles the detective, and his portrayal of a vicious lecher and buck-chaser with an icy, ironic grin is accurate.

Bebe Daniels, uncharacteristically blonde, is fine as Wonderly, making her a somehow appealing liar, schemer and murderess. Una Merkel gives a clever performance as the sexy, half-comical Effie. Thelma Todd manages to make Iva simultaneously beautiful but undesirable. Dudley Digges isn't as fat as Hammett's Gutman, but creates a memorable old crook who is by turns a hail fellow and a leering gargoyle. Walter Long's Archer is a brute with no redeeming qualities, while Otto Matieson is effectively sinister as the effeminate Cairo. Dwight Frye is a perfect Wilmer, a hot-eyed shrimp in an oversized overcoat, but has little chance to show it. Robert Elliott and J. Farrell MacDonald are able as bad-guy/good-guy detectives.

Roy Del Ruth's sharp direction plays well in Art Deco settings by Robert Haas, a clever artist who liked to develop his sets as soap carvings. Cinematographer William Rees, ASC makes fine use of lighting ostensibly emanating from onscreen sources, and captures the atmosphere of the foggy streets. In the mode of the period, there is no background score. The title music is a variation on the song "For You."

Everyone expressed surprise that Daniels had a role secondary to that of Cortez, but the picture was a hit. The New York *Times* reported that "Roy Del Ruth has done splendidly by an excellent mystery story." The *Motion Picture Herald* headlined, "Good mystery yarn provides many entertaining moments." *Photoplay* commented: "What a performance Cortez gives in this picture, playing the demon detective who is also a first-rate Don Juan… Bebe does excellent work… This is as fine a piece of film mystery — with chills and thrills — as the screens have held in some months."

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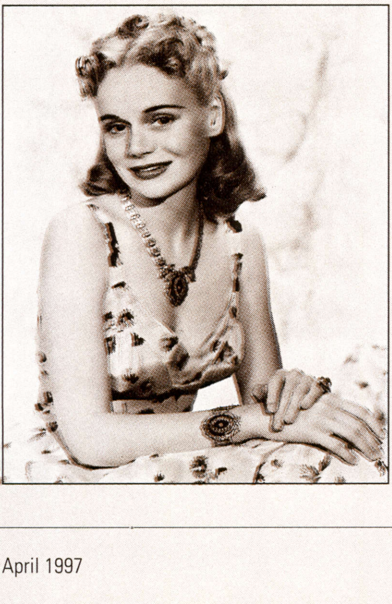
Following this success, Jack Warner wanted to use Sam Spade in further pictures, but the legal department advised that while Warner Bros. owned motion picture rights to the book, Hammett had also used Spade in three short stories, and retained the rights to the character. In 1936, Warner and Hal B. Wallis, Zanuck's successor, decreed that a new version of the *Falcon* story would be made without Spade or any other Hammett characters. This oddity, tentatively titled *Men on Her Mind* and previewed as *Hard Luck Dame,* eventually reached theaters in August 1936 as *Satan Met a Lady.*

The result of this pussyfooting is a near-parody that borrows the plot of the novel but strays afar elsewhere. All the names are changed, the Fat Man becomes a Fat Woman, and instead of a black bird, the fabled treasure is the jewel-filled horn Roland blew at Roncevalles when Charlemagne defeated the Saracens.

A fine German director, William Dieterle, was assigned to the project even though he begged Wallis to let him make *Anthony Adverse.* The stars were a reluctant Bette Davis — who was raising a ruckus demanding a starring role in *Anthony Adverse* — and the sleek Warren William. *Satan Met a Lady* was produced by Henry Blanke, supervisor of the 1931 and 1941 versions, and written by Brown Holmes, co-scenarist of the first.

It would hardly seem possible that such a group could labor and bring forth a flop. It has been speculated that Warner was punishing Dieterle and Davis for disobedience, and that William was being pushed into a turkey because his contract was expiring. But Warner never made a bad movie *intentionally.* During the same month, *Anthony Adverse* emerged as a prestige film directed by Mervyn LeRoy, with Olivia deHavilland in the role Davis had coveted.

Racy music and title art of a top-hatted Devil ogling



Clockwise from top: ***Valerie (Bette Davis) catches Shane (Warren William) in her apartment in*** **Satan Met a Lady,** ***a retooled and retitled retelling of Hammett's classic pulp novel; Arthur Treacher as Travers, seeker of a fabled treasure; Davis and William in a nifty publicity shot; Marie Wilson as Murgatroyd, Shane's dizzy secretary.***

Davis open the film. Ted Shane, a ruthless and eccentric private detective, is pushed aboard a train to San Francisco by a committee of ill-wishers. In the bay-side city, Shane moves in on his former partner, Ames, whose wife, Astrid, is wild about Shane. So is the couple's dizzy blonde secretary, Murgatroyd. When the attractive Valerie Purvis hires the firm to trail Farrow, her alleged betrayer, Ames, takes the job. During the night, Ames and Farrow are shot to death. Shane is suspected.

The next day, Shane has a run-in with Travers, an Englishman who knows Valerie and Madame Barabbas, an international crook, and is trying to find a fabled ram's horn of ivory filled with precious gems. Barabbas sends her plump "nephew," Kenneth, a psychotic killer, to fetch Shane. She says the horn is hers and was stolen by Valerie, her agent. She then makes him a large cash offer to recover it. Shane goes to the docks at night to meet Valerie's accomplice, a ship's captain who has brought the horn. Kenneth has set the ship afire, and murders the captain. Barrabas, Travers, and Valerie are also present. Shane gets the horn and clouts Kenneth with it, only to discover that it contains sand. Police officers, sent by Murgatroyd, arrest everybody except Shane and Valerie, who escape and catch a train. Shane accuses Valerie of murdering Ames and delivers her to police waiting at the next station. Murgatroyd joins Shane and they board the train.

"The, uh, stuff that dreams are made of." Humphrey Bogart and one of Hollywood's most famous props helped make John Huston's 1941 **Falcon** ***a classic.***

Although *Satan Met a Lady* misses the mark somewhat, the picture does have its better moments. Some bits of the novel are utilized for the first time, such as Spade/Shane consulting Effie/Murgatroyd's archeologist uncle about the bird/horn and his needling of Wilmer/Kenneth.

William has the satanic look of Spade. When being run out of town, he says, "If you ever need me, boys, you know where to look: right where there's the most trouble." The actor had played this type of role to perfection in *The Match King, The Mind Reader* and *Skyscraper Souls.* Shane smokes a pipe, sports sideburns and wears flamboyant suits and a wide-brimmed hat worthy of Ken Maynard. He mesmerizes rich old ladies with malarky and quickly informs young ones that "you and I can have a lot of fun." He is undisturbed by the graveyard murder of his partner, commenting that it's "about the only time he ever did anything in the appropriate place." When he sends Valerie to jail he tells her, "I'm crazy about you, sweetheart, but I won't be the fourth man to die for you." All he has in common with Spade are lechery, greed, intelligence and a raffish charm.

Bette Davis, despite her discontent at being cast in what she called her worst picture, was too professional to give a really bad performance. However, she does walk through several scenes and sometimes seems inappropriately grim. Wide-eyed Marie Wilson is a great scene-stealer as Shane's scatterbrained but gorgeous secretary, who greets customers with a hearty "How ya doin'?" Years later, she immortalized the similar role of *My Friend Irma* in radio, movies and on TV. Wini Shaw, customarily a singer in musicals, is captivating as a sophisticated, fun-loving, wayward wife. With Porter Hall as the phlegmatic Ames, her straying is understandable. As the scheming "Fat Lady," Alison Skipworth is delightfully nasty. Treacher, popular in the *Jeeves* films, is a funny but not at all menacing Travers. Nor is Holmes' Kenneth an adequate substitute for Frye, although he has some creepy moments. Threatening Shane, he says, "You won't be the first, but you'll be the most pleasant." Absent is Hammett's undertone of homosexuality among the villains, but there are hints that there is something odd in Kenneth's relationship with his elderly "aunt."

Most of the picture is photographed straightforwardly, with little of the visual style for which Arthur Edeson, ASC was noted, but two night sequences are in his best tradition. These depict the fog-shrouded graveyard where the body of Ames is found, and the finale at the docks, which is staged imaginatively in a heavy rainstorm. The miniature of the burning ship, however, is not convincing.

Although Dieterle and Davis suffered on the production, and Hammett took a beating, the film retains a certain screwball charm. French writer Jean-Loup Bourget even voiced a minority view that it is the best version and "comparable, but also very much superior, to the *Thin Man* series."

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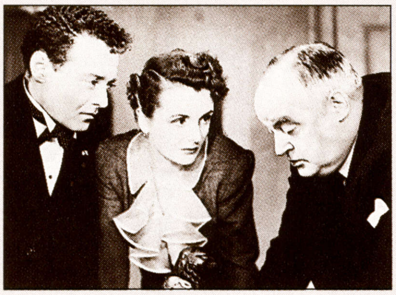
In 1941, John Huston, author of several successful screenplays for Warners, was itching to direct. He was given the opportunity to do just that when he was handed the reins to *The Maltese Falcon.* His version is widely considered to be a masterpiece of adaptation, direction, performance and photography.

For the most part, Huston's *Falcon* comes as close to the novel as time and censorship permitted, using much Hammett dialogue intact. Once again, Rhea Gutman is absent, and the relationships among the male villains are juxtaposed. Missing are Wonderly's stripping-down scene and any certainty that Spade's relationships with any of the women go beyond flirtation. This time around, Gutman and his cohorts are captured (offscreen) by the police.

Depicted for the first time are Hammett's descriptions of Spade rolling a cigarette and staring disconsolately at Archer's empty desk (the only hint that he felt anything but dislike for his late partner). The vicious byplay between Spade and Wilmer is given full treatment. Wonderly's real name, Brigid O'Shaughnessy, is heard for the first time. One scene not even in the book — the shooting and fall of



Clockwise, from top left: ***Spade gives his "shadow," Wilmer (Elisha Cook Jr.), a hard time in the hotel lobby; Huston, cinematographer Arthur Edeson (seated), ASC and Bogart welcome Walter Huston to Sam Spade's office; Cairo (Peter Lorre), Brigid (Mary Astor) and Gutman (Sydney Greenstreet) get the fabled black bird; Brigid tells Spade that she's tired of telling lies; detectives Dundy (Barton MacLane) and Polhaus (Ward Bond) question Spade about two murders.***

Archer — is shown with the camera providing the killer's POV. Also new is a fine musical score by Adolph Deutsch, which ripples ominously but unobtrusively through the non-dialogue action.

Huston directed like an old pro while Hal Wallis and Henry Blanke exhorted him to speed up the picture's action. Principal photography finished in 34 days, two days ahead of schedule, on July 27. At this point the cost was $327,182 — $54,000 under budget. A few days later, shooting resumed on retakes and added shots, mostly at Jack Warner's request. These included Archer's death scene and the new ending. Early in September, Warner ordered the opening scenes in Spade's office reshot with different dialogue.

The principals are seen in the roles that brought them immortality. The part of Spade was originally to be played by George Raft, but on the advice of his agent, the actor wrote to Jack Warner and refused the part because it "is not an important picture." Other stars were considered as well, including Fredric March, Brian Donlevy, Edward G. Robinson, Henry Fonda, Paul Muni, Franchot Tone, and a few more who were equally unsuitable. Eventually, Humphrey Bogart, then on suspension for refusing to play Cole Younger in *Bad Men of Missouri,* was given the role.

Bogart as Spade is a triumph of performance over type. Weathered, swarthy and slight of build, he is the opposite of Hammett's tall, brawny "blond Satan." Spade is written and acted as a much nicer guy than Hammett or the earlier films depicted him, which is surprising in that villainy was Bogart's specialty. His energetic, witty Spade is one of the all-time most endearing star turns, by far more Bogart than Spade. Similarly cast against type, wearing a boyish bob and almost matronly clothes, Mary Astor imparts a touch of class to Ruth/Brigid, making her seem ladylike in contradiction to her treacherous, promiscuous nature. She was cast after Geraldine Fitzgerald turned down the role.

The supporting players are first-rate. Gladys George is the perfect Iva, with a body "finely modeled and exquisite" but a "facial prettiness. . . perhaps five years past its best moment." Lee Patrick, good as the efficient Effie, lacks the sex appeal of her predecessors, and there is no suggestion that she is romantically involved with her boss. Jerome Cowan is the best Archer of all, a lanky, slippery opportunist. Barton MacLane as Dundy and Ward Bond as Polhaus are fine. John Huston's famous father, Walter, appears in a cameo role as the dying Jacobi.

The real show-stoppers are the villains. Peter Lorre is great as the effeminate Cairo, by turns comical and menacing. Elisha Cook Jr. is a standout as the glum and runty Wilmer, whom Spade calls "the gunsel" (underworld slang for a pederast's companion). The real surprise is the film debut of Sydney Greenstreet, a rotund 61-year-old stage actor from England, as Gutman. His considerable bulk visually increased by padding and low camera angles, he makes the fat man's double-talk and rumbling laugh memorable.

Arthur Edeson, ASC photographed most of the picture from below eye-level, creating strong images of the players and imparting a threatening angularity to the sets. Ernest Haller, ASC matched his distinctive style admirably in the retakes.

Perhaps the most intriguing thing about this wholly remarkable movie is that its most famous scene and most-quoted line are from Huston, not Hammett. As Spade watches the police cart O'Shaughnessy away in the elevator, behind bars that cast a disfiguring shadow on her face, Polhaus picks up the faux falcon and says, "It's heavy. What is it?" Spade, with a faraway look, replies, "The, uh, stuff dreams are made of." ◆

Credits

The Maltese Falcon
(a.k.a. _Hard Dame_)
(TV title: _Dangerous Female_)
1931

A Warner Bros. Pictures, Inc. *and* The Vitaphone Corporation *production;* Darryl F. Zanuck *in charge of production; directed by* Roy Del Ruth; *screen play and dialogue by* Maude Fulton *and* Brown Holmes; *based on the novel by* Dashiell Hammett; *photographed by* William Rees, ASC; *art director,* Robert Haas; *film editor,* George Marks; *wardrobe,* Earl Luick; *Vitaphone Orchestra conducted by* Leo F. Forbstein; *supervised by* Henry Blanke; *song, "For You," music by* Joseph A. Burke, *lyrics by* Al Dubin; *adaptation,* Lucien Hubbard; *camera operator,* Harry Davis; *assistant cameramen,* Fred West, Palmer Belmont; *still photography,* Mac Julian; Western Electric *recording. Running time,* 80 minutes; *released, May 28, 1931.*

Ruth Wonderly, Bebe Daniels; *Sam Spade,* Ricardo Cortez; *Caspar Gutman,* Dudley Digges; *Effie,* Una Merkel; *Iva Archer,* Thelma Todd; *Joel Cairo,* Otto Matieson; *Miles Archer,* Walter Long; *Wilmer,* Dwight Frye; *Lt. Det. Dundy,* Robert Elliott; *Detective Polhaus,* J. Farrell MacDonald; *District Attorney,* Morgan Wallace *(incorrectly attributed to Oscar Apfel); Captain Jacobi,* Agostino Borgato.

Satan Met a Lady
1936

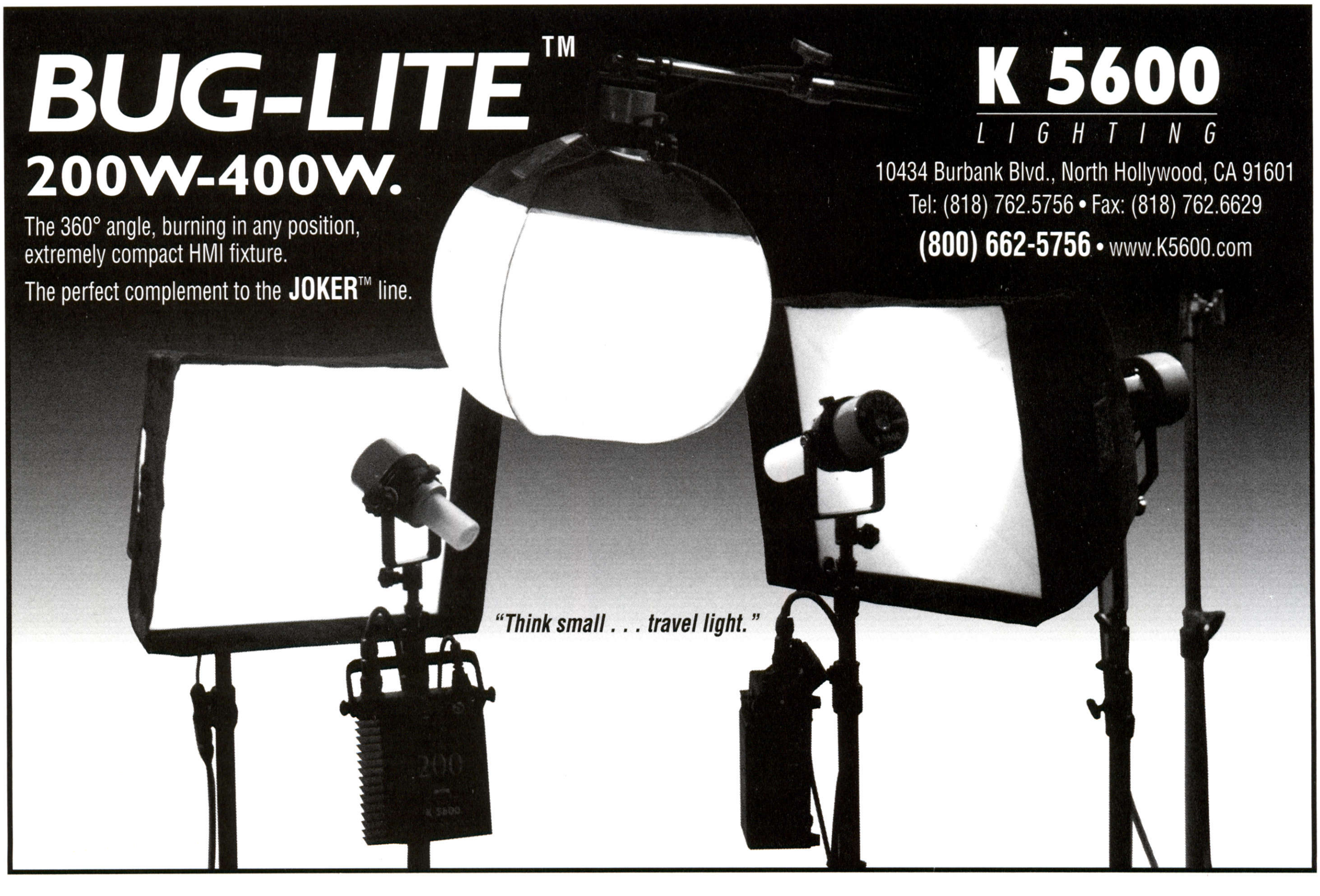
A Warner Bros. Pictures, Inc. *and* The Vitaphone Corporation *production; directed by* William Dieterle; *supervised by* Henry Blanke; *screen play by* Brown Holmes; *based on a novel by* Dashiell Hammett; *dialogue director,* Gene Lewis; *photographed by* Arthur Edeson, ASC; *art director,* Max Parker; *film editor,* Warren Low; *gowns by* Orry-Kelly; *unit art director,* Hugh Reticker; *sound recording,* Everett A. Brown; *sound effects,* Chester L. North; *operative cameraman,* Tom Branigan. *Running time, 75 minutes. Released July 1, 1936.*

Valerie Purvis, Bette Davis; *Ted Shane,* Warren William; *Madame Barabbas,* Alison Skipworth; *Anthony Travers,* Arthur Treacher; *Miss Murgatroyd,* Marie Wilson; *Astrid Ames,* Winifred Shaw; *Ames,* Porter Hall; *Dunhill,* Olin Howland; *Pollock,* Charles Wilson; *Kenneth,* Maynard Holmes; *Babe,* Barbara Blane; *Detectives,* James Burtis, Francis Sayles; *Desk Clerk,* Frank Darien; *City Fathers,* William B. Davidson, Joseph King, Edward McWade, John Elliott; *Mrs. Arden,* May Beatty; *Porter,* Ray Turner; *Old Man,* Frank Darien; *Policeman,* Cliff Saum; *Waiter,* Leo White; *Sailor,* Dutch Hendrian.

The Maltese Falcon
1941

A Warner Bros.-First National *picture;* Hal. B. Wallis *in charge of production; directed by* John Huston; *associate producer,* Henry Blanke; *screen play by* John Huston; *based on the novel by* Dashiell Hammett; *director of photography,* Arthur Edeson, ASC; *music by* Adolph Deutsch; *orchestrations by* Arthur Lange; *musical director,* Leo F. Forbstein; *art director,* Robert Haas; *film editor,* Thomas Richards; *sound,* Oliver S. Garretson; *costumes,* Orry-Kelly; *makeup artist,* Perc Westmore; *dialogue director,* Robert Foulk; *assistant directors,* Jack Sullivan, Claude Archer; *additional photography,* Ernest Haller, ASC; *script editor,* Allen Rivkin. RCA *recording. Running time, 100 minutes. Released October 3, 1941.*

Samuel Spade, Humphrey Bogart; *Ruth Wonderly/Brigid O'Shaughnessy,* Mary Astor; *Iva Archer,* Gladys George; *Kasper Gutman,* Sydney Greenstreet; *Joel Cairo,* Peter Lorre; *Lt. Detective Dundy,* Barton MacLane; *Effie Perine,* Lee Patrick; *Detective Tom Polhaus,* Ward Bond; *Miles Archer,* Jerome Cowan; *Wilmer Cook,* Elisha Cook Jr.; *Luke,* James Burke; *Frank Richman,* Murray Alper; *Bryan,* John Hamilton; *Mate of La Paloma,* Emory Parnell; *Policemen,* Robert Homans, Jack Perrin; *Reporters,* Charles Drake, William Hopper, Hank Mann; *Postal Clerk,* Jack Mower; *Sign Painter,* John "Skins" Miller; *Men on Street,* Paul Panzer, Sidney Bracy; *Captain Jacobi,* Walter Huston.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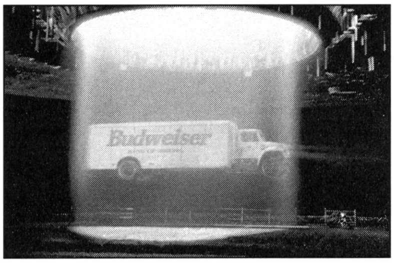
by Mary Hardesty



Super Bowl Sunday has become almost as well known for its entertaining, high-budget commercials as for the actual championship football game itself. For this past January's gridiron engagement, Anheuser-Busch reached out to the farthest point of the galaxy to bring viewers a humorous look at a cadre of extraterrestrials in search of a cosmic buzz.

Entitled "Space Party," the spot opens on a deserted stretch of highway. Out of the mist-filled night appears a Budweiser truck that makes an impromptu stop because a tortoise has settled in the middle of the road. The driver, Gus, gets out to move the tortoise to safety, oblivious to the flying saucer that appears in the sky behind him. An enormous beam emanates from the ship's belly and lifts the beer-filled truck into the heavens, leaving behind an amazed Gus. Suddenly, the craft executes a screeching, 180-degree turn as the aliens remember that they should be responsible partiers. Gus becomes a willing "abduction victim" and happily swims upwards through the shaft of light to assume the role of designated driver.

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Explains Weiss, "We tried to make every scene as realistic as possible, so viewers would think they were watching a tale about a UFO abduction. We shot the live-action footage in a cinematic style and took great lengths to test and perfect the computer-generated imagery, down to every light and shadow, so that when the responsibility message was addressed at the end, it would have the greatest impact."

Observes Alonzo, "Quite often, commercials have a claustrophobic look. Marty's vision was to have a big wide frame like in features. Most clients like to see their product up close, so we were very surprised when they agreed to let us open with a wide establishing shot using a windmill in the foreground of a vacant stretch of road."

For this shoot, Alonzo shied away from filters, which create more work in digital postproduction. He had assistant cameraman Jeff Greely order a Panaflex, a Primo 18-75mm zoom and Kodak's 5298 stock. Explains the cinematographer, "I would have used the new [Kodak Vision] high-speed stock, but when I checked with the effects people, they didn't care either way, so I stuck with Kodak's 5298 because it has more grain."

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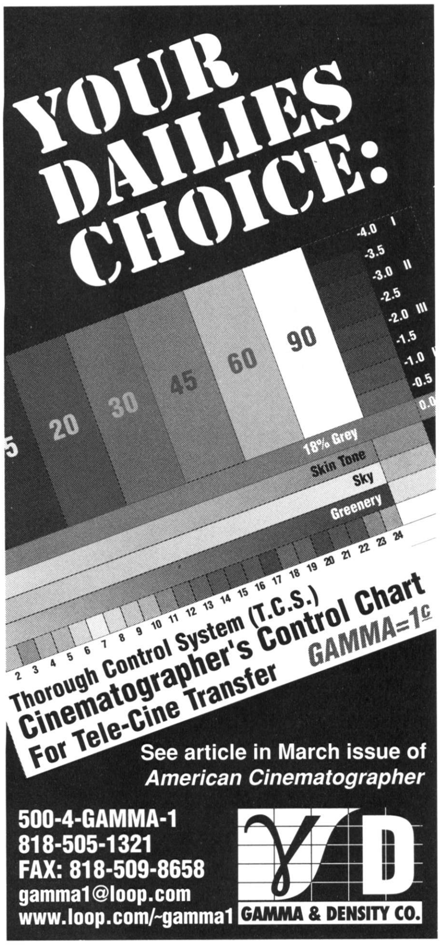

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Though the spot is a marriage of live-action footage and CGI, some of the more daring effects were effected in-camera. Notes Alonzo, "We actually hoisted a real beer truck. Gary Beaird, who is one of the best key grips around, designed the pickup points so he could do it with one cable. Everything was figured out during a practice drill, so when it came time to film, the truck was lifted perfectly without any sway."

Alonzo devised a lighting plan that gelled with the director's preference for backlighting. Due to the intricate web of fixtures being utilized, the location took on the look of a giant erector set during the night of its 13-hour shoot.

"We used a 85-foot crane nose-to-nose with a 125-foot crane to hold a Xenon with a 5K globe and a 10K housing," explains Alonzo. "To get the light to shine down directly on top of the truck, Gary had a huge 5' x 5' mirror rigged on piping atop yet another crane. You can't aim these lights straight down, because they're designed as searchlights, so we shot the lamp into the mirror, which was set at a 45-degree slant."

For overall illumination, Alonzo also used a Bee Bee light, which he placed some 10 blocks away. He notes, "It's like a Musco, but more controllable. My great gaffer, Richard Alerian, told me about it being a faster setup than the Musco. It's a wonderful system because it's self-contained in its own truck, the HMIs are independently controlled, and it goes up to a height of about 85 feet."

With plenty of experience in shooting technically intricate features (including *Blue Thunder, The Meteor Man* and *Star Trek: Generations*) Alonzo is well aware of the possibilities of effects work, and thus was able to improvise on this spot when time proved to be of the essence. While shooting Gus being sucked into the spacecraft, "we didn't have time to go to a studio for the greenscreen work, so we set up a 20' x 20' screen, lit it with Kino Flos, and placed a special 2K Xenon spot on the actor," says Alonzo. "We hung him on a wire and did the lift up of him traveling through space just as it got dark — but then it started to drizzle.

"The lighting looked beautiful with the mist coming up, but I told Marty that I thought the Planet Blue effects guys [Flame artist Nathan McGuinness and CG artist Matt Merkovich] weren't going to like it. As it turned out, they had a great attitude and thought it would be a challenge.

"They have so much control now," Alonzo says of the postproduction artists. "There was an area in the middle of the road with the turtle that seemed a little too dark, but if I had put any more light on it, we would have seen the rain coming down. They isolated that area and brightened it up so you can't even tell. The CG people were even able to digitally remove all of the water puddles from in front of the truck!"

Planet Blue fashioned the 3-D UFO in Lightwave and generated the ship's tractor beam via Flame; these elements were combined with the "quarter pound of atmosphere" Alonzo had photographed at various angles in order to lend the craft a more organic feel.

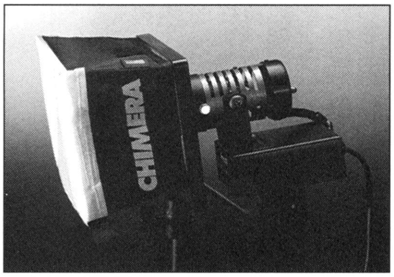
The compositing team then utilized the shot of the truck being lifted from the roadway — as well as a pass Alonzo had photographed of the truck in a stationary position to capture the Budweiser paneling and detail — in order to achieve the right perspective as the vehicle was being beamed up.

Alonzo is currently filming the feature *Letters From a Killer* for director David Carson (*Star Trek: Generations*), but he still tries to shoot commercials whenever his schedule permits.

"I always learn so much, especially when I work with all of the young people who are on the cutting edge of post technology," he says. "I'm at a wonderful point in my career where I get to experiment and experience things that are better for my craft, and hence my art. I've made a point to learn about Photoshop, Flame and the Avid. I'm not looking for a tool that's going to fix my work, but it's good to know what can be done in post if I run into trouble with time or the weather. To me, CGI is just an extension of what I do. Following through to the postproduction process lets me remain in control, and deliver something close to my original work." ◆

30-second spot: **"Space Party"**
Client: Anheuser-Busch, Inc. (Budweiser Beer)
Cinematographer: John Alonzo, ASC
Director: Marty Weiss
Production Company: Pavlov Productions, Culver City, CA
Agency: DDB Needham, Chicago
Special Effects: Planet Blue, Hollywood.

compiled by Lisa Sibert



Micro Bank for Frezzi Mini-Arc

Chimera has introduced a new addition to the existing line of Micro Banks designed for on-board camera lights — the Micro Bank for the Frezzolini Mini-Arc.

The high output and efficiency of the Frezzi Mini-Arc works extremely well with the 5 x 8" (125 x 200mm) Micro Lightbank — providing the Mini-Arc user with the option of having a soft, diffused light or direct, hard light as the situation requires. The face of the Micro Bank is designed to be quickly semi-removable when the use of direct hard light is needed or desired.

Chimera, (303) 444-8000, Fax (303) 444-8303.

Silicon Graphics' Octane Workstation

Silicon Graphics, Inc. has announced a new power desktop line called Octane, completing the company's transition to an all-new product line which started in October. The new Octane family features high-performance graphics, symmetric multiprocessing (SMP) and a pure 64-bit computing environment wrapped in an innovative high-performance system architecture designed to manage the various demands of future applications.

Sharing many components with the company's revolutionary new supercomputing architecture, Octane employs a unique seven-port crossbar switch in lieu of the conventional shared bus architecture. Octane also combines this high-bandwidth switch with single or dual MIPS R10000 processors and the world's fastest desktop graphics, translating to premier application performance for users in the manufacturing, entertainment, government and science markets.

Octane offers a 70% increase in floating-point performance over the industry-leading Indigo Impact 10000 family, also from Silicon Graphics. The seven-port Octane crossbar switch provides as much as 10 times the bandwidth found in most traditional architectures today, with a peak bandwidth of 1.6 GB per second per port. The SMP capability in the Octane architecture allows leading-edge companies to accelerate their product development processes, such as running tasks simultaneously that were traditionally run sequentially.

The Octane system is designed to process multiple data types, including audio, video imagery and three-dimensional geometry. Using hardware-accelerated geometry processing, high-speed texturing and sophisticated image processing, Octane systems enable compelling, real-time visual imagery for applications ranging from solid modeling, defense imaging, 3-D animation and emerging solutions such as real-time 3-D volume roaming.

Octane graphics scale to deliver a wide variety of performance levels. Octane/SI is designed for industry-leading solid modeling performance. Customers can also add a dedicated texture module to an Octane/SI system to create very high levels of realism. Octane/SSI yields twice the solid modeling performance of Octane/SI for customers tackling more complex models. Octane/MXI, the flagship of the product line, offers the highest levels of realism available in the desktop market.

Octane fuses graphics and digital media processing with built-in digital audio and a series of optional video processing cards. Digital media integration is seamless in the system, and can be edited using built-in software utilities such as Movie Maker, Media Player and Image Works. Coupling these digital media capabilities with an optional Octane Personal Video board allows users to produce a movie from the 3-D models displayed on their screens. Movies can be saved to disk, edited with built-in digital media software tools, and posted to a personal Web server, creating a powerful new means of communication.

The addition of the optional Octane Digital Video board, with advanced video processing features, offers customers high-end processing capabilities on a general purpose workstation. The Octane Compression card allows users to process two streams of state-of-the-art JPEG compression. Further, baseline audio capability can be expanded in the system using a new PCI-based audio expansion card that offers an additional 10 channels of digital audio I/O.

All Octane systems come standard with 10Base-T/100Base-TX ethernet, analog and digital audio I/O, external stereo speakers, 64MB or 128MB of memory, 2GB or 4GB of disk, a 20" monitor and one of three graphic options. The Octane line is expected to ship in February, and Octane video options will ship in April.

Silicon Graphics, (415) 933-7777, Fax (415) 960-1737.

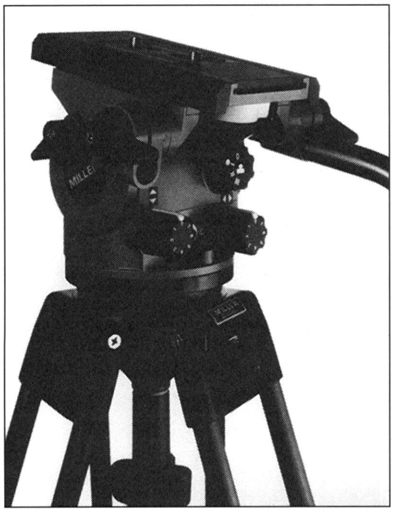
Fiber Options' Digital Transport

Fiber Options has introduced their Series 1250SB 12-bit digital transport system, designed to exceed RS250C short-haul specs, as the newest product offering in the broadcast and professional video line.

The 1250SB system features a bandwidth of 10Hz to 8MHz for video and 20Hz to 20kHz for audio. Providing the highest video and audio performance in the Fiber Options line, this system has been designed for use within broadcast facilities and remote field production, linking composite video and up to eight channels of audio.

Fiber Options, Inc. designs and manufactures a complete line of fiber-optic links for transmitting video, audio and data. Products are also available for security, industrial and transportation (ITS) applications.

Fiber Options, Inc., (516) 567-8320 or (800) 342-3748.



Arrow 50 Camera Head

Miller Fluid Heads introduces the Arrow 50, a new approach to ENG/EFP camera control and the first new head design in several years from the developers of fluid pan/tilt heads.

The Arrow 50's design team worked closely with leading videographers and digital camera manufacturers, utilizing the latest 3-D CAD/CAM development tools to transform the wish lists of these professionals into an advanced camera support system. Weighing only 6.6lb (3kg) and featuring a sleek, low-profile styling, the Arrow 50 clearly complements the aesthetics and control ergonomics of new-generation portable digital cameras.

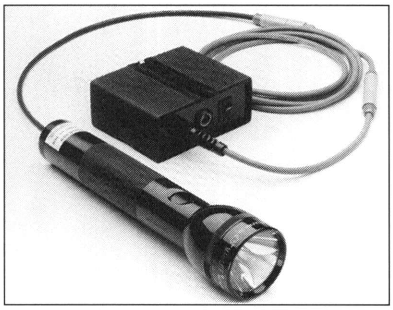
The Arrow 50 features seven selectable drag settings (including "0," a 4-position "dial-in" counterbalance or a wide range of camera configurations from ENG camcorders to EFP dockables, back-lit bubble level and selector controls, positive pan/tilt locks and a ±70mm sliding camera platform with quick-release plate.

Drag and counterbalance selectors on the Arrow 50 are at the rear of the head, placing them in the operator's view at all times and providing additional protection in harsh field environments. All controls are easy to access and (together with the bubble level) can be illuminated at the touch of a button to optimize operation in low-light conditions.

The Arrow 50's 100mm bowl mount ensures compatibility with all popular ENG/EFP tripods. When combined with Miller's Pro-Lok aluminum or carbon-fiber tripods, it provides a highly stable and versatile support system for all ENG/EFP operation.

Advanced die-cast construction on the Arrow 50 incorporates anti-corrosive treatment, sealed housings and shock-proof controls, and provides optimum protection and durability for the harsh climactic and geographic rigors of location production.

Miller Fluid Heads (USA) Inc., (201) 857-8300, Fax (201) 857-8188.



Metal Halide Sunflash

LP Associates introduces Sunflash, a 24-Watt Metal Halide fixture that looks just like a black-anodized flashlight. Sunflash features a metal-halide, short-arc DC lamp and a tiny electronic ballast, like the other members of the Sunspot family. The pigtail power cable protruding from the back of this working prop can easily be tucked up a sleeve or hidden under other objects.

Sunflash delivers constant 5500° Kelvin daylight while consuming about ⅓ the power of a typical 100-watt halogen incandescent lamp. This results in higher output and longer battery life. Warm-up time is about 18 seconds, although 80% of nominal power output is achieved in just 10 seconds. Sunflash produces a narrow beam that can be seen from distances up to 200' or more, depending on ambient conditions. It runs on 12V DC input power at 2.5 amps.

Sunflash is available in two sizes: Sunflash I measures 9" (228mm) long by 2.25" (57mm) in diameter, and weighs 10.7 oz. (300g). Sunflash II is two inches longer (279mm total), and weighs 12oz. (336g).

LP Associates, (213) 462-4714, Fax (213) 462-7584.

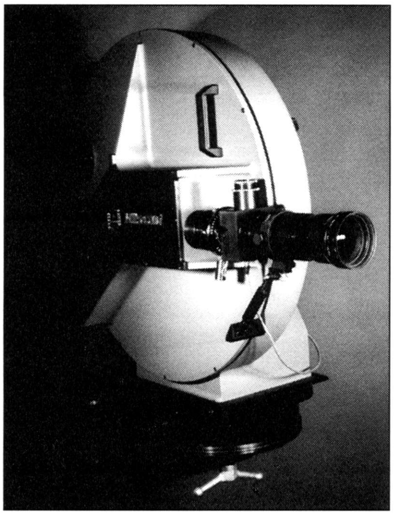
Drum Camera

Millisecond Cinematography L.C. has developed a camera system, called a drum camera, capable of shooting full-frame 35mm film from 120 to 12,000 frames per second with excellent resolution and image quality. Instead of moving film from a supply reel to take-up reel, it spins a loop of unexposed film around continuously inside the camera in a circle. The operator must load a 7 ½-foot strip of film into the camera in order to take a picture; the film goes into the inside track of a flywheel, or drum, which then spins up to a constant speed. The camera waits with the unexposed film spinning (at speeds up to 500 mph) until shooting begins.

The operator of the drum camera must open the shutter, flash the lights and fire the event, all within one revolution of the drum, to avoid double-exposing the film. Automatic triggers must be set up when shooting above a few hundred frames per second, so that all of this happens at the right time. The camera comes with sophisticated timing equipment to make the process easy.

Shots are limited to 120 frames, or five seconds of screen time, because the camera only shoots one loop of film at a time. However, the timing equipment used to synchronize fast events is very accurate; while there are only 120 frames per shot, it is possible to determine exactly what will be on those frames. This also eliminates film waste during camera run up or run down.

Floodlight illumination can be used up to about 1,200 frames per second. Above this speed, shots must be illuminated with Millisecond's specialized flash lamps, for two reasons. First, the amount of light needed at high framing rates is very large, and the exposure time of each individual frame at top speed is around 1/50,000 of a second. These flashlamps are capable of producing light which is 1,000 times brighter than sunlight. Second, at the higher speeds, the shutter does not open and close fast enough to limit the total exposure to within one revolution of the drum. The flash unit will turn on and off precisely, creating a very bright light pulse



of the right duration.

High-speed pin-registered cameras currently available are capable of shooting at up to 360 frames per second. The only choice to go faster than this has been the prism camera, which moves film continuously behind a rotating glass block, or prism. These cameras are capable of shooting up to 2,500 frames per second, but they require compromises in image quality and frame stability, are difficult to control and waste tremendous amounts of film. The Millisecond camera can shoot five times faster than a prism camera, with much better results and no film waste.

Drum cameras have been used for over 30 years in scientific research to photograph high-speed events. The scientific research market routinely photographs expensive experiments, and their requirements for reliability and ease of use are extremely high. Much effort has gone into the design of drum camera equipment over the years to meet these needs. The Millisecond system incorporates this technology, and while being reliable and easy to use, it does require a qualified operator to go out with it.

The Millisecond camera comes from the sole manufacturer of drum cameras worldwide, Cordin Co. of Salt Lake City, UT. Cordin cameras have been designed primarily for the scientific market, and therefore have had peculiarities which made them incompatible with the cinematography market. The Millisecond camera was designed and built specifically to meet

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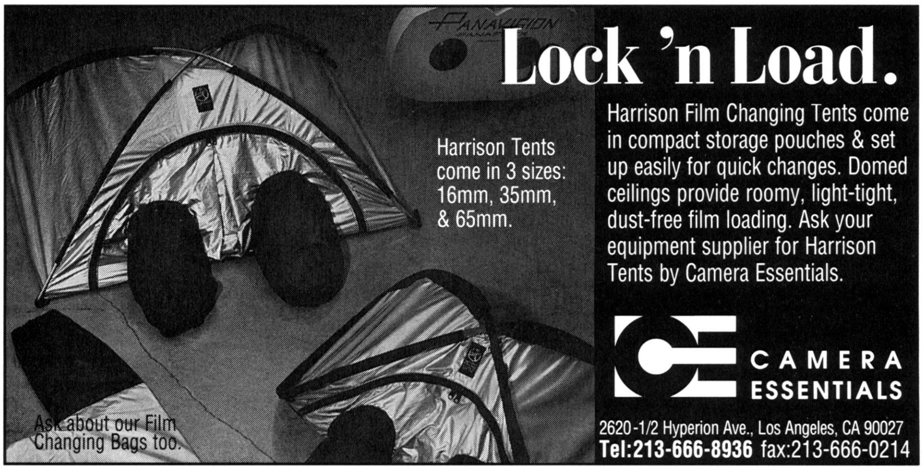

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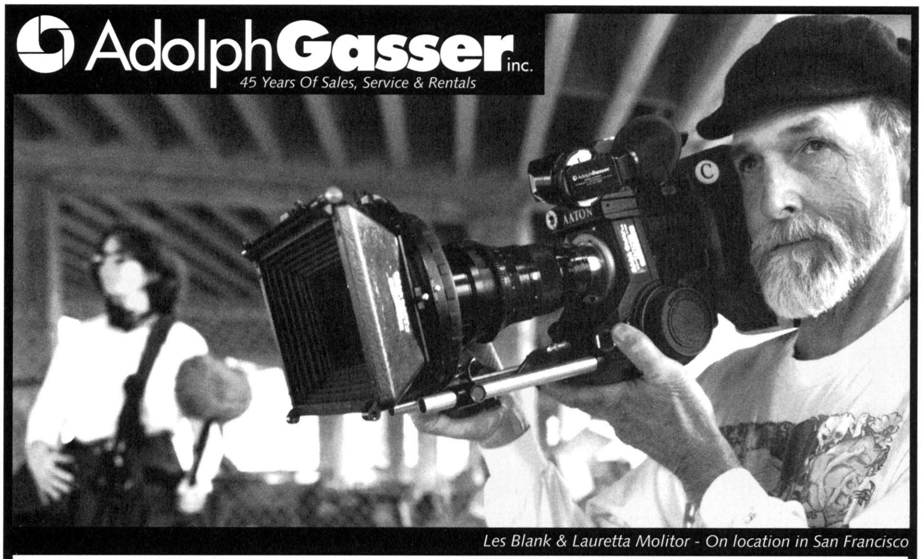

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the needs of this market, and the introduction of this service marks the first time this technology is available to professional directors of photography.

Millisecond Cinematography L.C., (213) 852-9835.

All-Terrain Base

A new version of Chapman/Leonard's ATB (All Terrain Base) has now become available. The ATB II provides new features designed especially for football sideline coverage.

Incorporating both hydraulic and electronic actuation of the arm, the ATB II allows both the driver (hydraulically) and cameraman (electronically) to control the arm's movement. Additionally, the arm of the ATB II can pan a full 360°, while obtaining an upper lens height of 16 feet and low lens height of 6 feet. The ATB II comes with a variety of packages (i.e., sport, film or television) to meet all production needs. The ATB II wheels are easily changed with a single bolt, and further simplified by incorporating a built-in solid tire, allowing tire change without the use of a jack; a variety of tires are available. The chassis of the Sport ATB II is narrower, designed to fit the unit in TV trucks.

Chapman/Leonard Studio Equipment, (888) 883-6559, Fax (888) 502-7263.

New Handles, Locking Systems and Handle Replacement Kits

Kart-A-Bag has introduced newly designed handles and locking systems for its commercial line of telescoping hand trucks. Models affected include the Super 600, Tri-Kart 800, Concorde 5 and Tri-Kart 750. The company is also offering replacement kits for standard handles and bike handlebars that will fit models produced before June 1996. Made from polycarbonate plastic, the new handles are reputed to offer 10 times the strength of the models they replace. All handles are cylindrical in shape with built-in hook holders. The bike-style handlebar extends the length of the standard handle and adds rubber hand grips to give users greater ability to maneuver bulky loads. Kart-A-Bag's newly patented push-button locking systems replace the previous design and make opening and closing the telescoping systems faster and easier. The new locking systems, handles and handlebars are available on all new Kart-A-Bag products ordered from the factory, while handle and handlebar replacement kits can also be obtained from distributors. According to Kart-A-Bag, new locking systems can only be replaced at repair sites.

Kart-A-Bag, (815) 723-1940, Fax (815) 723-2495.

Logofilms' Logoscope Device

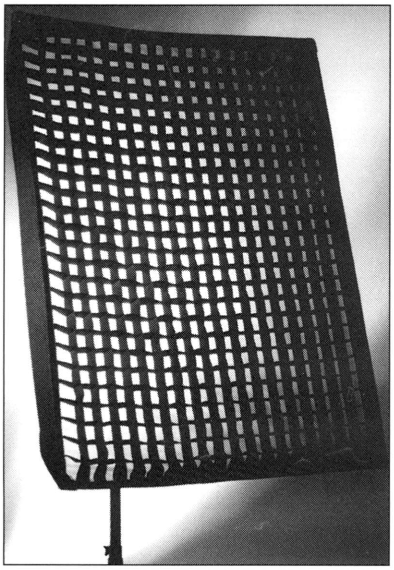
Frank DeMarco and LogoFilms have just been awarded U.S. Patent #5,550,610 for the LogoScope device. The LogoScope puts logos or other coherent information in the out-of-focus highlights of photographed images. The LogoScope creates a subtle, pleasing effect that is more than subliminal yet less than overt, producing beautiful, hypnotic images. The LogoScope has created uses for parts of the photographic canvas never even considered before. The new device will be seen in upcoming music videos, commercials and motion pictures.

LogoFilms, (212) 982-3245.

New Fabric Grid

Westcott introduces a fabric grid accessory to its Westcott Box line. This new collapsible grid provides 40 degrees of concentrated, hard-edged light when combined with the Westcott Box.

The Westcott Box provides professional image-makers with high-quality, versatile light control. It offers



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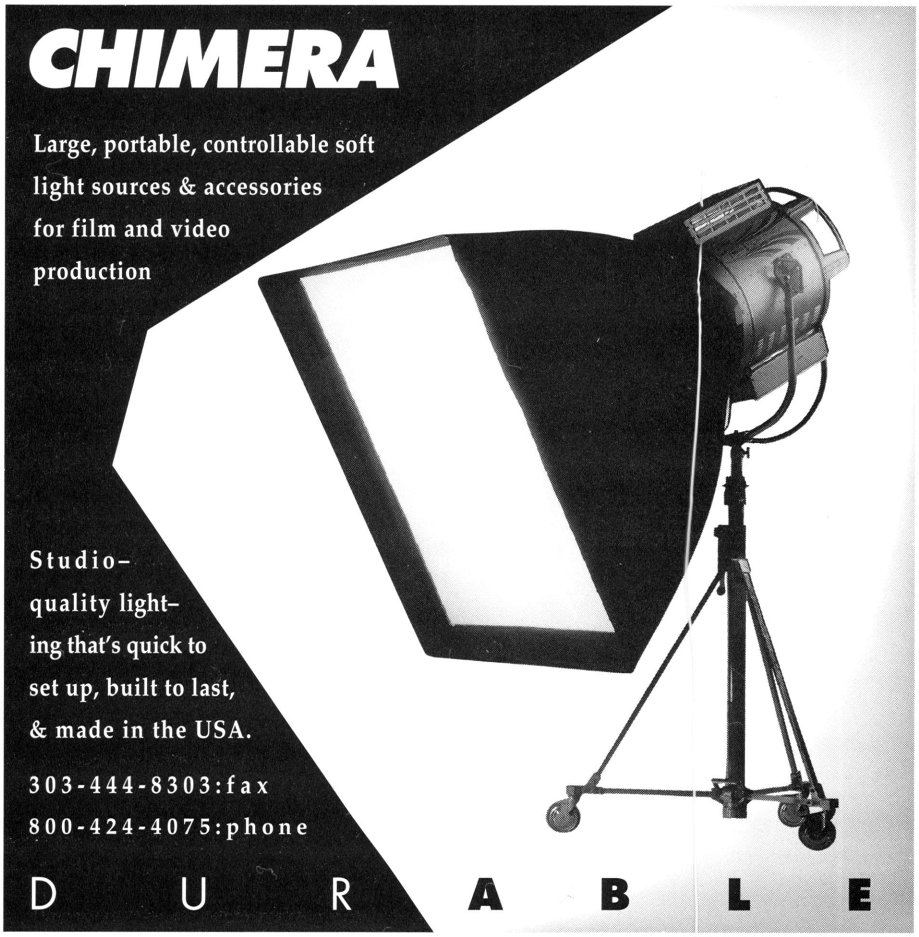

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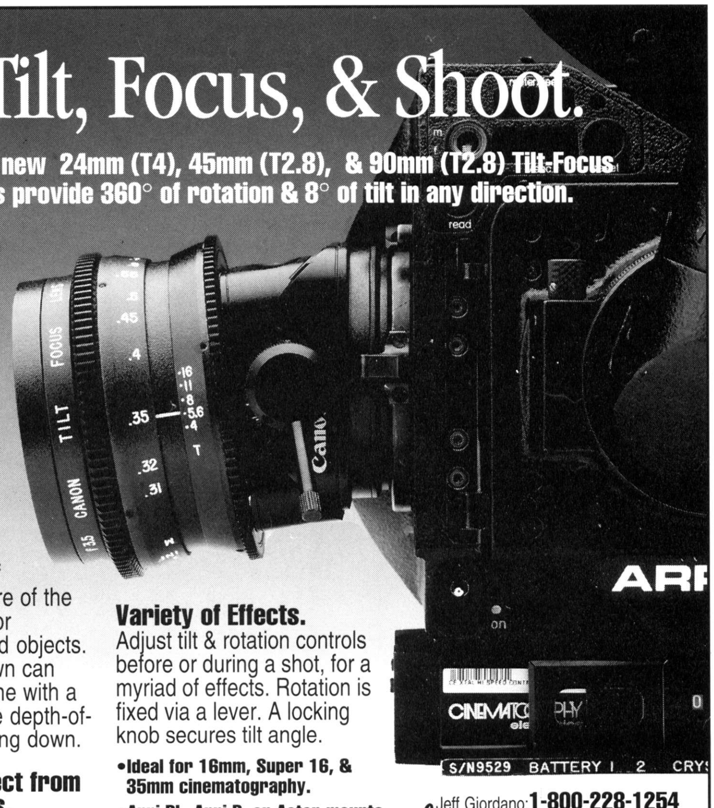

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innovative accessory features including front diffusion panels and removable interior baffles. Accessory kits increase the versatility by providing interiors that can easily be changed. Louver kits also are available in sets of six and can be used with the Westcott Box or with other industry soft boxes.

Like other Westcott equipment, the fabric grid is portable and easy to use. Made of a lightweight fabric, it attaches to the Westcott Box with Velcro strips along all four sides. Once the user is finished, the fabric grid is fan-folded into small strips, tied with a Velcro strap, and stored in a flat position. The fabric grid is available for three of the four Westcott Box sizes.

The Box collapses into a small carrying case. Box One measures 16" x 22", Box Two 24" x 32", Box Three 36" x 48" and Box Four 54" x 72". The Box is also unique because it comes standard with a specialized, flame-proof fabric near the light, enabling image makers to use up to 1K of continuous lighting without damaging the fabric. This leads to longer life and decreases the frequency of costly replacements.

Westcott, (419) 243-7311.

PA's Guidebook

Production Assistant Guidelines, a concise 45-page booklet written by New York-based production manager Sandy Curry, offers invaluable tips and checklists for both new and experienced PAs. "I make anybody who wants to work for me read it before they start," Curry says. "It has really smoothed out communications and reduced the usual production chaos to a minimum."

The book is written primarily for PAs working on TV commericals, but most of the tips also apply to features, music videos, and any other type of production. The book offers a wide variety of information, such as 10 things to check for when renting a vehicle, what to say to a union rep ("nothing, just send them to the producer"), and how to handle film. It also includes an 81-item glossary of production terms and lingo.

Copies may be ordered by mailing a check or money order to Sandy Curry, 333 Berry Street, Brooklyn, NY 11211-5113 or by calling (718) 387-1251. The books cost $6 each plus $1 shipping and handling (NY State residents should add $.50 for sales tax). ◆

Filmmaker's NYC Roots Flavor Debut Feature

by Brooke Comer

Seth Zvi Rosenfeld's first feature, *A Brother's Kiss*, tracks the fraternal friction between the charismatic, streetwise Lex (Nick Chinlund) and his younger brother Mick (Michael Raynor) as they confront the pressures and temptations of the underworld in a New York ghetto.

Rosenfeld originally penned the project, which is based upon personal observations of his hometown, as a one-act play. But this isn't his first take at transposing a theatrical work for the silver screen; New Line Cinema had previously acquired Rosenfeld's *Writing On the Wall*, a piece about teenager who communicate solely through graffiti, after it had been performed at the Westbeth Theater Center.

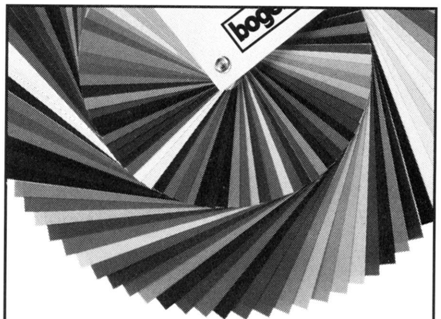
Having dabbled in both mediums, Rosenfeld admits that each presents a unique series of challenges. The director notes, "Theater is all about language, and film is about images. I became interested in directing film because I wanted to communicate with my generation, and film speaks to that age group more than theater does."

Cinematographer Fortunato Procopio has photographed all of Rosenfeld's movies, including his directorial debut, the 16mm silent short *Under the Bridge*. He shares the director's innate rapport with the pathos and energy of New York City, and this synergy proved particularly helpful during the preproduction phase of *A Brother's Kiss*.

"What I love most about our collaborations is the special process Fortune and I use, which I highly recommend," says Rosenfeld. "When we go out to our locations — I get no thrill out of shooting on a studio set, and I love location shooting — we take pictures [to create photoboards]. We also act scenes out, so that he and I know every beat in the script. Fortune will also go over a script with me and help edit it, since each scene has to be so purposeful.

"*A Brother's Kiss* was an ambitious project," the director continues. "It involved two time periods, as well as basketball games and crowd scenes. I would have had no idea how I was going to shoot it if we hadn't done photoboards for every scene in the movie. We'd veer in another direction if we got a new idea, or if we had to cut shots. But basically, the photoboards became a foundation for me as a first-time feature director. When production time came around, the crew was confident that we were prepared."

Rosenfeld chose to concentrate upon characterization for *A Brother's Kiss,* so he opted for an objective camera style. Toward this end, Procopio utilized a Panavision package, and avoided the use of a zoom lens. The director explains, "Everything had to be so motivated from the camera's point of view — even the slightest pan — that



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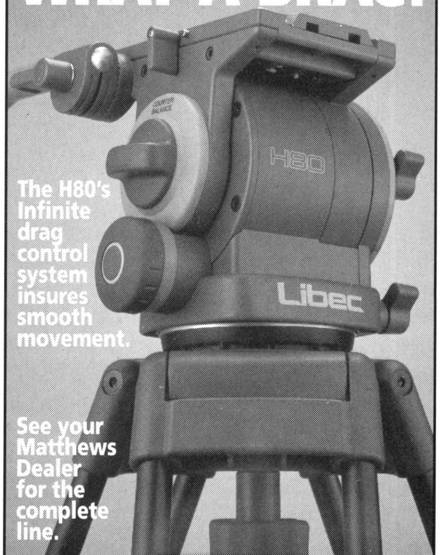

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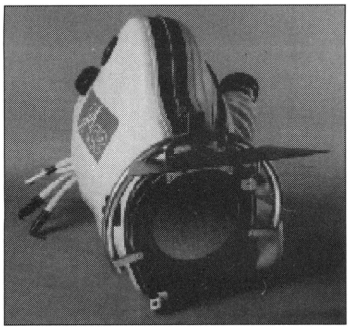

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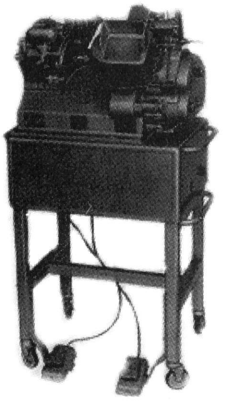

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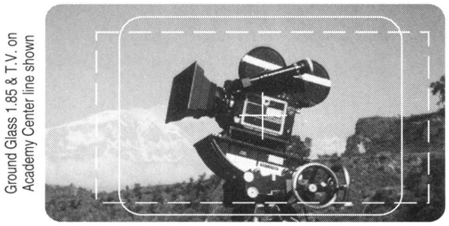

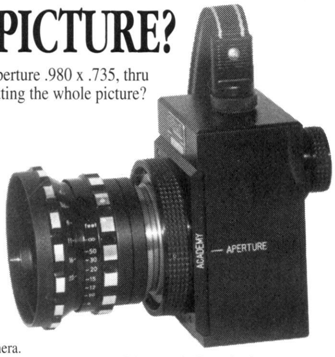

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Fortune didn't feel comfortable with camera motion unless there was a specific reason for it. He was very conservative, but I think he was right. You don't feel the camera in *Brother's Kiss.* No one is going to look at a scene and say 'How did he get that shot?'"

Specific shadings were selected for Lex and Mick's childhood and adult worlds; a bluish palette was used for their younger years, while browns and earth tones signified more mature moments. The director adds, "There were a lot of night scenes in which we managed to get away with things that were a bit flashy. I was somewhat worried while we were shooting one particular club scene, because Lex's character was all in red and another character was in blue. There's also another sequence where Lex and a woman are both bathed in red. I was afraid all of that red would seem a bit over the top, but in the end, it didn't."

> "Growing up in New York has influenced me by providing me with a way of seeing life."
>
> — Seth Zvi Rosenfeld, director

Given the filmmakers' fondness for the hustle and bustle of the Big Apple, shooting on location in New York City didn't faze them a bit, even when the going got tough. "We filmed in working drug locations, after-hours clubs, and stores in East Harlem," says Rosenfeld. "But we had a lot of community support, as well as an integrated crew. I knew the rhythms of the neighborhood, because I'd spent time hanging out here when I was a teenager. I had a good intuitive sense of where I wanted to shoot.

"In New York, people walk, and they ride subways," the director points out. "In that kind of environment, you really see life; you hear random dialogue, and ideas are floating around all the time. Growing up in New York has influenced me by providing me with a way of seeing life." ◆

Books in Review

by George Turner

Making Documentary Films and Reality Videos

by Barry Hampe
Henry Holt & Co., 366 pps., paperback, $16.95

"From the outside, making a documentary seems like the easiest thing in the world. You just go where something interesting is happening, turn on the camera and record it."

So begins the first chapter — entitled "It Looks So Easy" — of this important new entry in the literature of documentary filmmaking. What ensues is a thorough, 314-page explanation of why there is so much more to making an effective documentary than just being in the right place to photograph the events of the day. Barry Hampe, a longtime pro in the field, has amassed a highly informative and readable volume illuminating the practical, ethical and aesthetic aspects of producing documentary films. He goes beyond the basics to describe avoidable pitfalls just as carefully as he explains what is entailed in devising a documentary that transcends mere reportage. He outlines the whole process, from preproduction through postproduction, and does it well. In underscoring the importance of the visual aspects, for example, Hampe says:

"A documentary is existential. It has to stand on its own. You can't go along with the print and explain to the audience what you meant to show or shoot, or what a particular scene is supposed to mean. You simply have to shoot the best analog of the actual situation that you can manage and then edit the footage into a single, coherent print that will clearly communicate your intentions to the people who will see it. Sound — narration, dialogue, interviews, and music — may help the audience to *interpret* the documentary. But it won't take the place of solid evidence in the form of concrete visual images."

The importance of pre-planning is strongly emphasized. Failure in this area "sends you out on the wide ocean in a leaky boat with no charts and few provisions." There are also valuable lessons in scheduling, figuring costs, getting a crew together, selecting equipment, and all of the other factors needed for planning and filming a successful documentary.

Aside from the "how-to" material, there are many pieces of historical information about the influence of Hollywood studio perfectionism, television, cinema verité, war and other factors upon documentary techniques.

Attack of the Leading Ladies

by Rhona Joella Berenstein
Columbia University Press, 274 pps., cloth, $42.50; paper, $15.50

The subtitle of this tome — *Gender, Sexuality and Spectatorship in Classic Horror Cinema Z*— gives fair warning of what to expect from this latest entry in Columbia University's Film and Culture Series. Like many of its recent counterparts, this book has an agenda — essentially, it's a feminist analysis of the gender instability underlying the surface of certain famous horror films. The movies subjected to the closest scrutiny include *King Kong*, *Mad Love*, *Bride of Frankenstein*, *Dr. X*, *Dracula*, *Svengali* and *White Zombie*, most of which are deemed to really be about homosexuality.

The term "homosocial" (which has yet to appear in the dictionary) is used throughout to describe "the social and erotic charges that bind rivalrous men together in narratives and. . . as a description of the manner in which patriarchy excludes women." There is some jumbling of names (William Knight for Nigh, Preston Foster instead of Robert Frazer as Lionel Atwill's assistant in *The Vampire Bat*, etc.) and some concepts that are difficult to grasp. The notion that Karloff's tall, pale Frankenstein monster

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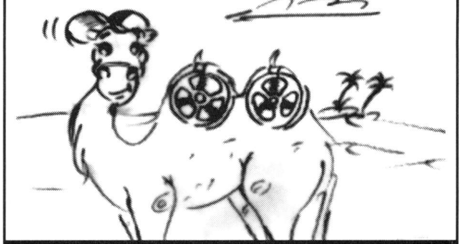

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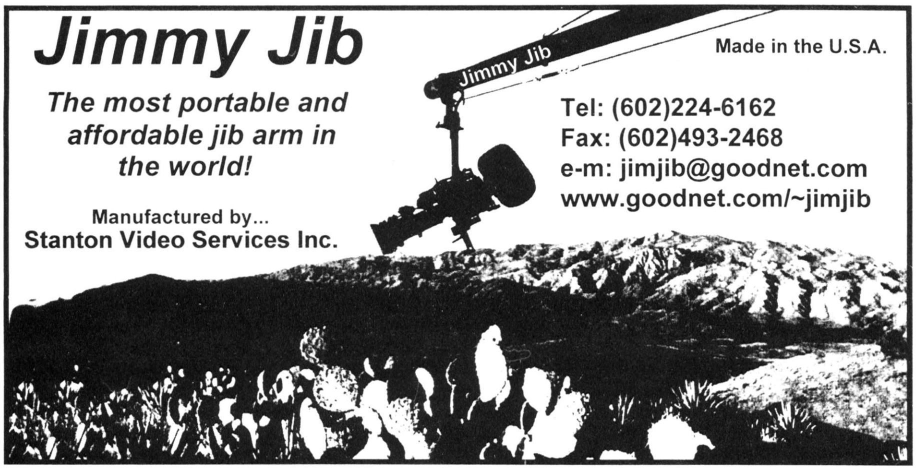
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has "ape-like features" suggesting "conventional stereotypes of African-American men" is an imaginative, if somewhat questionable, concept.

Poverty Row Studios, 1929-1940

by Michael R. Pitts
McFarland & Co., 534 pps., library binding, $75

A fascinating aspect of the Great Depression was the struggle of small independent production companies to get their movies made and exhibited despite overwhelming odds. Since the majority of films from Poverty Row were very inexpensive affairs that offered little competition to the major studios, this tome provides a largely unchronicled aspect of the industry. In *Poverty Row Studios*, Michael Pitts offers historical notes on most of these companies, along with complete filmographies. Monogram, Mascot, Grand National, Republic and PRC were omitted because they have been covered in other McFarland books. Incidentally, all but a few of the Poverty Row outfits were not actually studios, but merely offices whose proprietors rented studio space when necessary.

Arranged alphabetically, the chronicle begins with (Victor) Adamson Productions, where the house specialty was a series of Westerns starring Art Mix (the ads half-concealed a tiny Art and emblazoned a huge **MIX** for obvious reasons), and ends with Sam Katzman's Victory Pictures Corporation, where features were pushed through for $8,000, more or less, usually the latter. In between are 51 other companies, including Supreme, Tiffany, Reliable, Majestic, Mayfair, Commodore and more.

The filmographies reveal that Poverty Row did not purely peddle sleaze. Some of the filmmakers did their best to generate a quality product despite the constraints of time and money, and a few were sufficiently gifted to succeed. Good actors (old-timers on their way down and young talent on the way up) are found in most of the pictures because retakes were an unaffordable luxury. Top drawer cinematographers — e.g., ASC members Leon Shamroy, Arthur Edeson, Ira Morgan, Ted McCord, Archie Stout, Norbert Brodine — are also evident because only the best could handle so many setups per day. ◆

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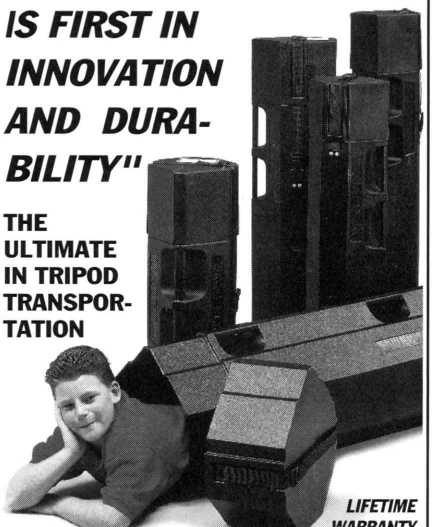

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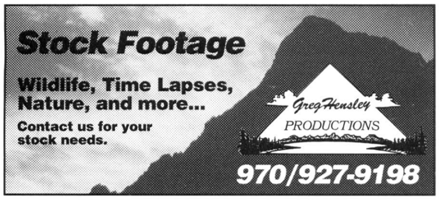

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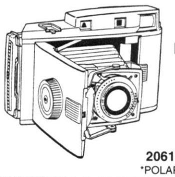

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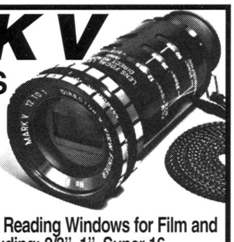

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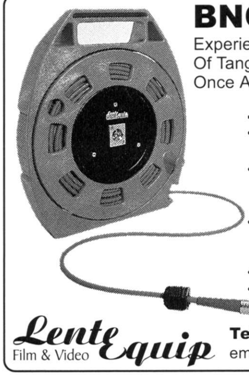

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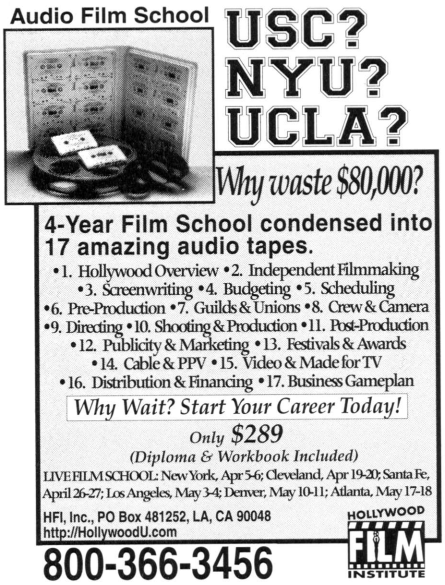

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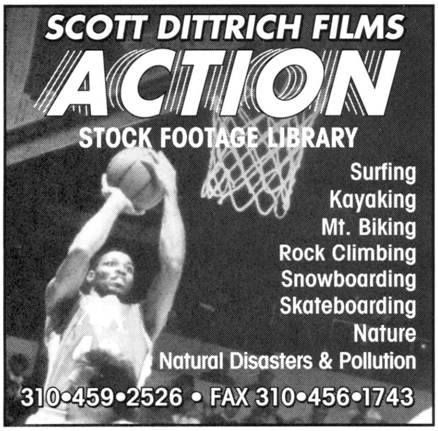

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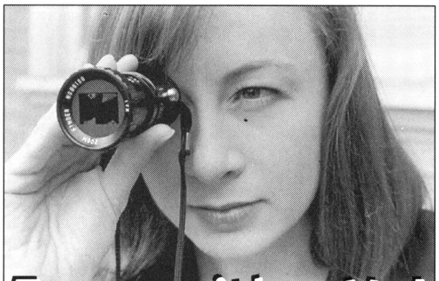

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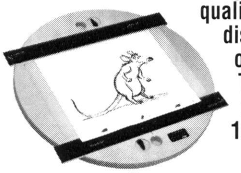

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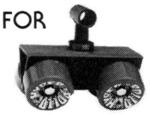

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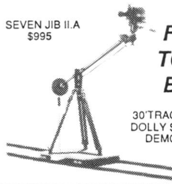

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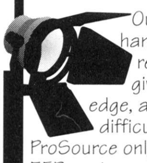

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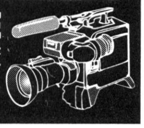

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In Memoriam

Enzo Martinelli, ASC, a veteran of more than 60 years in motion picture and television cinematography, died on February 5, 1997, in Jackson, Tennessee. He was 89.

Born in Union City, New Jersey on September 13, 1907, Martinelli became interested in photography as a child. His uncle, Arthur Martinelli, allowed him access to his equipment and darkroom. Enzo's parents died when he was 12, so his uncle assumed guardianship of the young lad and took him to California. He attended a military academy, as well as CalTech, and then landed a job in the lab at Paramount, where his uncle had become a cinematographer. In 1927, Enzo was transferred to the camera department, where he became an assistant to Victor Milner, ASC on *Street of Sin.* For two years he served under most of the cinematographers then employed by the studio. Ironically, he would work with his uncle only once: in 1932 on the classic chiller *White Zombie.*

In 1929, Martinelli joined Fred Jackman, ASC in the Warner Bros. special effects department. In 1936, he joined Columbia's visual effects department, where he executed process, miniature and insert photography. He also was an assistant to several directors of photography, including Joseph Walker, ASC on *Lost Horizon.* He joined Republic in 1942 as an operating cameraman, working with Bud Thackery, ASC, John MacBurnie and the Lydecker brothers in both the special effects department and on production cinematography. He later operated for both Jack Russell and Jack Marta.

Martinelli was still at Republic when it became Revue TV and the burgeoning company moved to Universal. While there, he operated mostly for Benjamin Kline, ASC and Walter Strenge, ASC. In 1966, he was promoted to director of photography on one of the early feature-length series, *The Virginian,* for which he photographed 103 episodes from 1966 to 1970. Martinelli then moved on to another feature series, *The Name of the Game,* followed by *Man of the City.*

A partial list of shows Martinelli photographed includes such well-known series as *Chrysler Theater, The Munsters, Tammy, To Catch a Thief, Ironside, The Six Million Dollar Man, The Bionic Woman, Quincy, The Hardy Boys, Little Women, Vega$,* and *The Contender.* Much of his best work appeared in TV features, pilots and specials.

When he became a member of the ASC in 1972, Martinelli said, "At present I'm working on *The Sixth Sense.* I am having a lot of fun with visual effects — apparitions, vanishing and appearing actors, splits and dissolves — all on-the-set work. Although I'm working mostly in TV, my experience goes back to the silent days. It's sure paying off now!"

His breadth of experience certainly paid off in 1975 when he tackled the 90-minute pilot film for *The Invisible Man,* for which he did both the principal photography (on film) and the visual effects (on tape) in a mere 18 days! He also photographed the series. Martinelli once described the techniques he used on this show in an *American Cinematographer* article ("Photographing *The Invisible Man,"* July 1975), which was reprinted in 1983 in "The ASC Treasury of Visual Effects." The editor at the time noted that "A happy marriage of motion picture film and video has been envisioned since the early days of television. Of the several attempts made during the Seventies, *The Invisible Man* was both the most complicated and the most successful from a technical standpoint."

Following major surgery in 1980, Martinelli underwent a long convalescence. He retired in April of 1987.

Services were held on February 7 in Jackson, Tennessee. Martinelli is survived by his wife, Valerie, who resides in Jackson, and his only son, Vincent Martinelli, ASC, who resides in Oregon. Donations should be made to: In Memory of Enzo Martinelli, ASC Good and Welfare Fund, American Society of Cinematographers, PO Box 2230, Hollywood, CA 90078. ◆

Filmmakers' Forum continued from page 128

VistaVision was a good idea that failed because it required projectors that were incompatible with prior formats. So while Vetter's CDP proposal seems to be a good start, it may be only half of an idea. On its own, it appears likely to take its place beside three-perf as a good but incomplete solution to the basic modernization of projection and format options.

Meanwhile, Wonderland Park Technology, a new company led by editor Dean Goodhill and producer/engineer Don Behrns, is developing an entirely new modular projector head and IP/IN manufacturing system. Their Switchable Pulldown Projection System would allow for the projection of a variety of alternate film formats which would be completely compatible with both current and alternate formats.

Their patent-pending designs specify a system capable of automatic switching between the various formats without operator attention. If reliable, this system could be installed into existing film projectors at relatively low cost,as it would replace only the picture head, leaving existing platters, lenses, and lamp-houses in place. It would also allow for the possibility of higher frame rates (e.g. 30 fps) on appropriate titles without creating compatibility problems with trailers and other titles photographed at the standard 24 fps. Finally, it would allow for enhanced resolution formats, such as a 5-perforation pulldown, alone or in combination with higher frame rates, which might prove to be enough of an attraction to draw home viewers back to theaters on a more frequent basis.

Projectors have, until now, failed to evolve beyond the inflexible rigidity of conventional mechanical design. If the Switchable Pulldown Projection System proves viable, it could open the door not only to the use of the CDP format, but to 3-perf and other formats that would revolutionize the future of theatrical film exhibition.

Electronic and digital media may never catch up to the constantly improving domain of motion picture film. However, the motion picture industry should promote new and better ways of shooting, showing and storing the images we make on film. Otherwise, those singing the tune of film's demise could someday be right. ◆

From the Clubhouse

Held on Febuary 23 at the Century Plaza Hotel in Century City, the 11th Annual ASC Awards for Outstanding Cinematography drew over 1,300 attendees to celebrate the artistry of the 20 nominees and fete the six honorees recognized for their respective achievements. A complete overview of the nominees will appear in the upcoming May and June issues of *AC*. Presently, however, it is time to recognize the many individuals and organizations who made this year's Awards such a tremendous success. ◆

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The Phoenix Flies Again, or The Death of Film (and Other Folk Tales)

by Steven Poster, ASC

During my 30 years as a cinematographer, I've heard rumors about the "Death of Film" — and a takeover by whatever electronic medium was then hot — at least a half-dozen times. To be sure, there have been a succession of remarkable technological innovations in the electronic realm. At the same time, film now seems to be moving even further ahead in its core area of theatrical exhibition.

The current explosion of theater construction both here and abroad is staggering. Over the past 14 months, nearly 2,000 new screens have been mounted in North America alone, with more to come. Film remains the undisputed king of theatrical exhibition, so why do some otherwise well-informed people still feel that it will soon succumb to electronic distribution and display? The medium's critics fail to recognize that film is constantly evolving. It has a 100-year head start on electronic imaging, and it's still improving.

In other words, film is a moving target. When I first heard about the impending death of film over 25 years ago, the heir apparent was two-inch Quad tape. How many changes have we seen since then? Two-inch Quad is now so obsolete that it's difficult to find a video facility anywhere in the country that has even has one such device. Video is a world of constant change wherein every new format demands expensive new hardware. I doubt if the current expansion of theatrical construction would be possible if it were based on a technology that required constant replacement of obsolete hardware.

Proponents of electronic cinema don't claim that they're trying to improve the quality of imaging. Rather, they're trying to reduce the cost of distribution. Greater economy and improvement of theatrical exhibition are both possible and essential to the long-term viability of theatrical exhibition. But if that's the goal, why not look for a solution within the already dominant technology of film?

The fact is that the 1.85:1 theatrical format wastes nearly 40% of the film it is printed on, which costs the motion picture industry nearly $200 million a year. This waste has gone on unchecked because of the establishment of the 4-perforation standard frame size over 100 years ago.

Four-perf made sense when movies were photographed and shown in the 1.33:1 aspect ratio. But when that aspect ratio was adopted by television, widescreen cinema emerged. Now, while the 2.4:1 anamorphic "scope" format makes full use of the 4-perf frame and thereby achieves the richest photographic imaging, the vastly more popular 1.85:1 aspect ratio achieves its apparent width by masking the top and bottom of each 1.33 4-perf frame, wasting 37.5% of the film within that pulldown. Unfortunately, conventional projectors can only function in 4-perf pulldown mode, so that waste has continued. However, two companies are currently developing solutions to this problem that may change film-based cinema so dramatically that discussions of electronic cinema may vanish for the foreseeable future.

Dr. Richard Vetter, working with the backing of a partnership between United Artists Theaters and Todd-AO/Glen-Glenn, has patented a 2.5-perf release print format that eliminates the waste described above. He calls it the Compact Distribution Print (CDP). This new projection format eliminates the film area customarily masked off (wasted) in 1.85 productions, and also involves retrofitting standard projector sprockets with smaller ones that pull less film through the projector. Thus, the standard 90 foot-per-minute film speed is reduced to 56.25 fpm. The CDP format results in 37.5% reduction in film use, but the audience sees exactly the same quality of image they would see with the 4-perf pulldown — simply because they never saw the wasted area between the projected frames anyway.

This is not an entirely new idea. A 3-perf format was proposed in a July 1986 *American Cinematographer* article by Rune Ericson. The 3-perf format results in a 25% savings. Vetter seeks to up the ante by an additional 12.5%, with the hope that the additional savings might prove too compelling to forego.

The problem with the CDP proposal is identical to the problem which stood in the way of the 3-perf format: incompatibility with prints made with the current 4-perf 1.85 and anamorphic formats. Vetter seeks to solve the scope incompatibility problem by reducing the size of scope image on film and making it fit on the same-size frame as a 1.85 production. However, the resolution and photographic richness of scope productions would then be no better than what we now have for 1.85. That may prove to be a barrier to the CDP proposal, since many directors and cinematographers prefer the scope format specifically because of its higher resolution.

CDP's recent demonstrations show 1.85 and scope footage reduced to fit on their 2.5-perf prints, and both look good. However, the scenes shown in the scope demonstration were drawn from sequences that included many cuts of short duration, as well as images that would, by the nature of their composition and lighting, tend to obscure the reduction in image quality that would be expected with a reduction of frame size.

Despite the extremely fine grain of the release-print stocks now available, the weight of photographic history says that a larger film image results in a better picture onscreen. So why should filmmakers make that compromise? At any rate, even if Dr. Vetter could provide undiminished scope quality in a CDP print, he would still be plagued with compatibility problems. In the 1950s,

Continued on page 127

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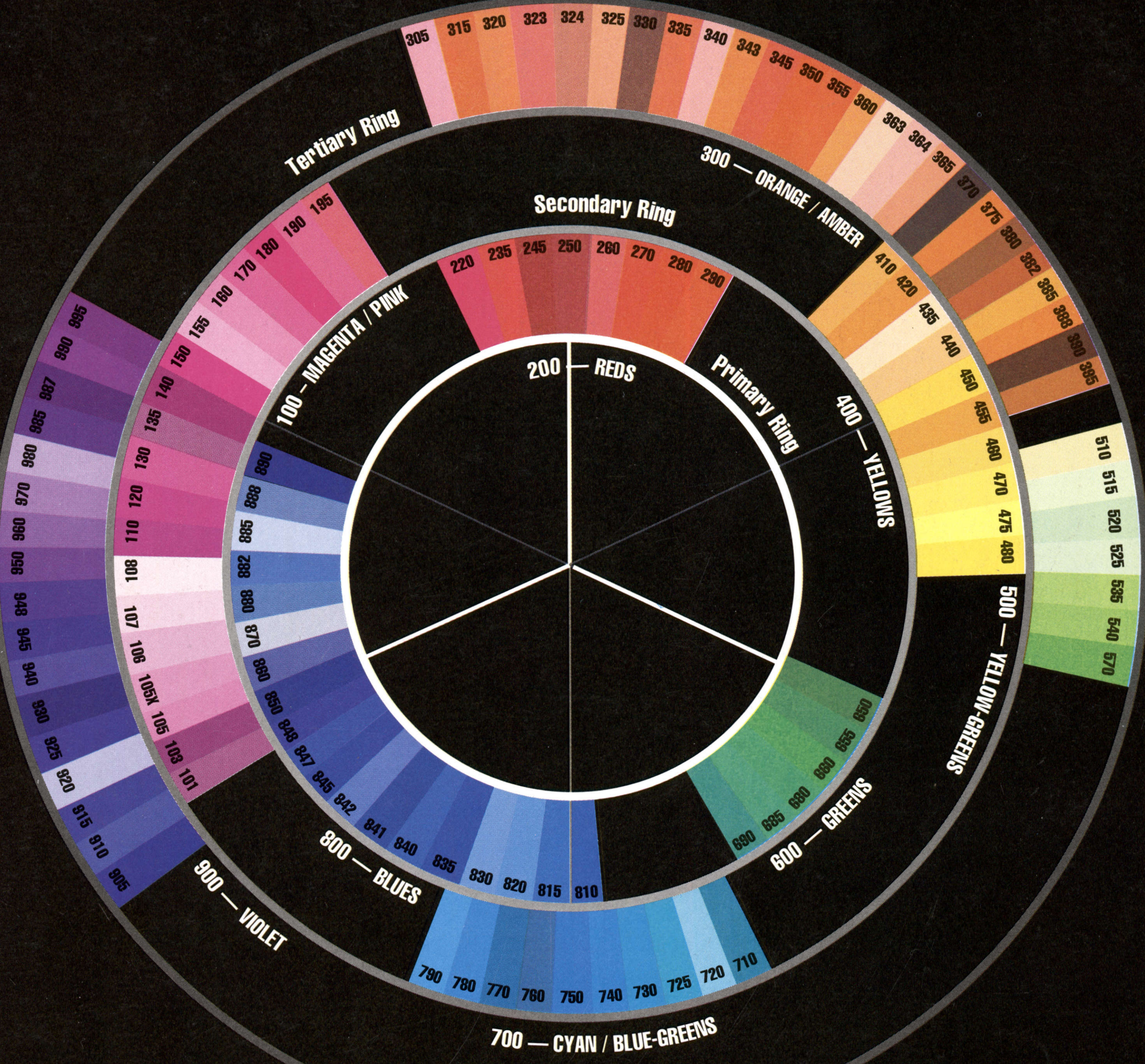
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